ATHLETIC JOURNAL

Vol. XVI, No. 9 May, 1936

Coaching the Pole Vault
Frank Hill

Outfield Play
Pat Crawford

Teaching the Javelin Throw
Carl Olson

Geared

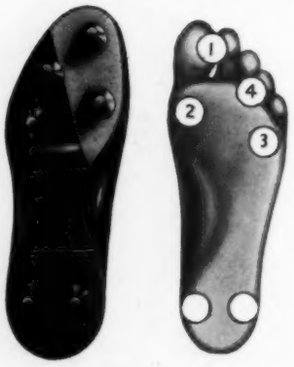
TO THE GRIDIRON

Patented

SPOT-BILT 4-CLEATED GAME SHOES

The Spot-Bilt 4 cleated principle is unquestionably THE IMPORTANT DEVELOPMENT in football shoes. Simple in principle—magical in effect! Your feet will instantly appreciate a difference we cannot describe—!

The Spot-Bilt special 4 cleat principle provides a unique placement of the cleats on the forepart of a football shoe. Working on the assumption that a truly scientific placement of the cleats would be a material benefit to the athlete, our research department developed the 4 cleated arrangement illustrated. This arrangement definitely has the following advantages: 1. A lighter shoe. 2. Wider spacing of cleats eliminates clogging with mud or turf. 3. Better traction. 4. Greater precision in cutting and pivoting. 5. Greater driving power.



Better traction is obtained by scientifically placing the cleats at the weight bearing points of the foot. Our research established points 1, 2 and 3 (see illustration) as the weight bearing points. Lines drawn between cleats 1, 2 and 3 form a triangle the sides of which coincide with the weight bearing surfaces of the foot. The cleat in position 4 is a balance point and aids in cutting and pivoting.

Greater precision in cutting and pivoting results from the better traction obtained by this arrangement.

Because this arrangement places the three important cleats—1, 2 and 3—directly under the points of maximum foot pressure they enable the athlete to utilize his full driving power.

SPOT BILT

SPOT-BILT ATHLETIC SHOES

Since 1898---Athletic Shoe Specialists

WITCHELL-SHEILL CO. - - - - - - - - - - 1635 AUGUSTA BLVD., CHICAGO, ILL.

BERNIE BIERMAN
Minnesota

BIERMAN!

His Minnesota Teams Undefeated in 3 Years

WALDORF!

LYNN WALDORF
Northwestern

First Year in Big Ten Was Outstanding Success

COLLEGE ALL-STARS!

1935 All-Americans Train for Game with Detroit Lions

GLORIOUS VACATION!

Two Weeks on Shores of Lake Michigan—Baseball—Golf

AT NORTHWESTERN'S COACHING SCHOOL, AUG. 17-29

BIERMAN and Waldorf, two of the most talked of coaches in the country today, will head up Northwestern University's two weeks Summer Coaching School. These men will be assisted by a complete staff of coaches giving interesting lectures and field demonstrations in Football, Basketball, Track, Swimming, Golf, Tennis, Administration, Training and Intramurals. Their work will be supplemented by practical demonstration of the College All-Star Football Team which will work out daily at Dyche Stadium in preparation for the game with the Detroit Lions, National Professional Champions, at Soldier Field, Sept. 1.

EVANSTON holds unequalled opportunities for a Glorious Vacation. Live for two weeks in fraternity houses on the lake front. Excellent bathing beaches at your doorstep. Entertainment and special attractions galore for the whole family. Cubs and Sox baseball games as guests of the clubs. Luncheons and bridge parties for the wives. Golf on nearby courses. A vacation you will never forget.

WRITE TODAY →

NORTHWESTERN UNIVERSITY

MR. K. L. WILSON **Evanston, Ill.**
Athletic Director

Please send me full details concerning Northwestern University Coaching School.

Name .....

Address .....

City and State .....

VOLUME XVI

The ATHLETIC JOURNAL

NUMBER 9

CONTENTS
for May, 1936

PAGE

5 Coaching the Pole Vault ..... Frank Hill

8 Outfield Play ..... Pat Crawford

11 Net Play in Tennis ..... Paul Bennett

14 Teaching the Javelin Throw ..... Carl Olson

18 Offenses and Defenses of Olympic Tryout Tournament Teams .. James D. Kelly, A. C. Lonborg

19 The Physics of Baseball ..... Ralph B. Waterman

20 Junior College Track and Field Athletics ..... Oliver E. Byrd

24 Interscholastic Golf ..... V. V. Gilcrease

28 Prospects of the United States in the XIth Olympiad ..... Clarence A. Bush

33 Mouse-Trapping Tackles and Guards ..... Fred H. Swan

38 Turf Maintenance ..... Edward E. Evaul

42 New Method of Scoring the Decathlon in the Olympics ..... W. A. Dill

AMERICAN OLYMPIC TRYOUT SCHEDULE for MAY, JUNE and JULY, 1936

Boxing, May 7-8, Preliminary-Finals, Chicago, Ill.

Equestrian Sports, May 20-23, Final, Fort Riley, Kansas.

Boxing, May 20, Final, Chicago, Illinois.

Walking, May 24, Final, 50,000 meters, Cincinnati, Ohio.

Marathon, May 30, Final, National A.A.U., Washington, D. C. (To be run not later than May 30)

Pentathlon (Modern), June 4-7, Final, West Point, N. Y. and Washington, D. C.

Gymnastics, June 16, Final, Men, Yankee Stadium, New York.

Track and Field, June 19-20, Semi-final, National Collegiate A.A., Chicago, Illinois.

Track and Field, June 26-27, Semi-final, National A.A.U., Los Angeles, Milwaukee, and Cambridge.

Rowing, July 2-3-4, Final, Carnegie Lake, Princeton, N. J.

Swimming, July 9-10-11, Final, Men, Rocky Point Pool, Providence, R. I.

Swimming, July 11-12, Final, Women, Astoria, Long Island, New York.

Track and Field, July 10-11, Final, Men, Randells Island, N. Y. (place tentative).

Sailing, July 15, From New York, N. Y., on *S.S. Manhattan* of the United States Lines.

Nineteen Sports, August 1-16, Olympic Games in Berlin.

PUBLISHED MONTHLY except July and August by The Athletic Journal Publishing Company, 6858 Glenwood Avenue, Chicago, Illinois, Member Audit Bureau of Circulations. Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice.

MEMBER AUDIT BUREAU OF CIRCULATIONS

SUBSCRIPTION PRICES: $1.50 per year; $2.00 for two years; $2.50 for three years; Canada. $2.00 per year; foreign. $2.00 per year. Single copies, 25 cents. Copyright, 1936. The Athletic Journal Publishing Company. Entered as second-class matter, August 14, 1925, at the post office at Chicago, Illinois, under the Act of March 3, 1879.

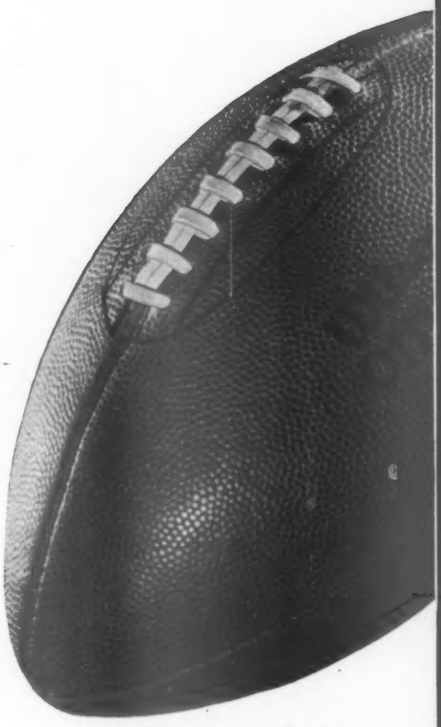
WILSON EQUIPMENT PUTS MORE "KICK" IN THE GAME FOR PLAYERS—for Spectators

● The open game—more kicking—more passing not only demands better equipment; but better equipment has speeded up play—made it more spectacular.

Wilson feels proud of the part it has played in making the game more fun to the players and spectators alike, by developing footballs that are more accurate in drop kicking and passing—and give more distance in punting. And it's not an idle boast either, to say that Wilson's new football harness and headgear that protect without handicapping action, make for more brilliant, speedy play.

Wilson
SPORTS EQUIPMENT

WILSON SPORTING GOODS CO., Chicago, New York and Other Leading Cities



Wilson Footballs

● An outstanding example of pioneering leadership that has contributed to the development of the modern game, is the Wilson Official Football, perfect in balance and shape. It has taken the wobble out of passes and added distance and accuracy to punts and drop kicks. There is a Wilson regulation size football for every purse and purpose.

Headgear

● Have a careful look at this new headgear—corset back, patent ear, low brow—every vulnerable point protected. It's a streamlined, smooth fitting work of master designing. Only a sample of the long line of outstanding models.

Football Pants

● Here is a football pant geared to action. Basic principle of design has made possible, with a minimum of weight, maximum protection at vulnerable points—especially where neuropathic safeguards are needed. The bellows jockey seat, the well-tailored construction and leather reinforcements at points of strain make for freedom of action and long wearability. Just one of a new line filled with exclusive features.

Shoulder Harness

● A beautiful job—every edge turned smoothly and finished to perfection. In Wilson equipment the cantilever and other shock-absorbing features are moulded to fit the anatomy, giving maximum protection where needed with no excess weight anywhere. It is an outfit that offers every safeguard without handicapping action. See the new Wilson line of harness before making any definite selection.

"It pays to play"

THERE'S MAGIC IN THE NUMBER 05!

THAT'S what some coaches say—coaches who have equipped their teams with the famous Reach Official 05 Football. But *we* call it just uncommonly good materials, designing skill and workmanship.

Give the 05 a try on those new plays you're whipping into shape. Put your boys through Spring practice with the football that's

- absolutely *official* in size, shape and weight—and *stays* that way regardless of the punishment it gets.
- accurate for passing and punting—sure on drop and place kicks.
- easy to control when passing against the wind.
- made of finest selected specially tanned Reach Tuf-ide football leather, with patented, shape-retaining double lining.

Not only in Spring practice, but all through the season, you can count on the 05 for *top* performance!

HSF—for high and prep teams

For scholastic play, Reach offers the specially designed HSF—a high quality, durable ball, a companion to the 05 in size, shape and weight. This ball offers an outstanding value for your money.

Your Reach dealer will gladly show you both the 05 and HSF—as well as the complete line of Reach football equipment for 1936.

If you have budget limitations, that's an especially good reason for looking over the Reach line. You'll find the sort of features you want your team to have—at prices that are in line with your budget.

For complete information, write to A. J. Reach, Wright & Ditson, Philadelphia, Chicago, Kansas City, Cincinnati, San Francisco, New York.

NSGA IT PAYS TO PLAY

Reach

FOOTBALL EQUIPMENT

William Roy of Loyola University, New Orleans, Louisiana, giving a fine demonstration of pole vault form in the Southern Amateur Athletic Union Meet at Louisiana State University, May 4, 1935. Roy vaulted 13 feet 7⅝ inches in this meet. The body arch or semi-jackknife is being used by Roy to good purpose. This style is apt to get good results for the heavy, muscular type of athlete who does not develop much power or speed out of the run. In this illustration, the vaulter has the pole well under him and is in good position to get a strong push-up before leaving the pole.

Coaching the Pole Vault

By Frank Hill

Northwestern University

CONSISTENT success in pole vaulting is the result of mastering several separate details and then blending these into one harmonious, synchronized whole. With practice, the athlete is generally able to achieve this synchronization in action; a task that seems hopeless to the writer who attempts to delineate on paper these actions in something like the order of their occurrence.

In discussing these various phases of the vault, we may as well begin where the novice vaulter must needs begin and follow him step by step through all the necessary maneuvers.

The Take-Off Mark

FIRST it must be determined at what spot the vaulter must leave the ground in order that he may get the utmost lift, swing and spring—and all three of these in the proper proportion. This is done by grasping the pole with the top hand (right hand for right-handed vaulter) at a point about as high on the pole as the average height vaulted, then standing about ten feet back of the take-off box, seating the pole in the box, and raising the hands above the head. The vaulter now shifts his feet forward or back until, as he stands erect, his hands grasping the pole are about a foot in front of his head with arms at full extension. The position of his feet indicates the spot from which the vaulter should leave the ground.

The point at which the top hand is to grasp the pole is the one item which will vary with vaulters of differing abilities and probably provides the only question that may arise thus far in the discussion. By the average height is meant a height about 6 inches below the vaulter's best height if that best is not over 11 feet 6 inches; 9 inches below it if his record is 11 feet 6 inches and under 13 feet 3 inches. For vaulters of the first flight, it will usually be found that a grip at about 12 feet 8 inches is sufficiently high. However, when our vaulter reaches this stage of proficiency, he will have his own ideas on this subject, founded on the sound basis of trial and error. If the vaulter is to err, it is far less dangerous for him to hold the pole a trifle too low than a bit too high. A high hold—that is, a too high hold—may result in a strained back, and the least damage it can do is to jerk the vaulter off balance and swing him in against the pole.

BORN in Chicago, Illinois, Frank Hill attended Armour Institute of Technology. He started his athletic career as an amateur boxer for the Chicago Athletic Association, making an excellent record. He also competed on the C. A. A. and Hamilton Park track teams. During the early part of the World War, he was track and field coach at the Great Lakes Naval Training Station and was later assigned to duty with the fleet. Since 1921, he has been Head Coach of Track and Field at Northwestern University. He has been particularly successful in developing pole vaulters and middle distance runners. Three pole vaulters who achieved national and even international prominence under him are Roy Bouschor, William Droegemueller and Tom Warne.

The Approach and Take-Off

HAVING located the take-off mark, the next chore is to check the approach so that it will bring the vaulter's left foot to this mark at the end of the run. The method I prefer is the eight and eight stride check. The vaulter measures back eight running strides from his take-off mark and makes a check mark on the runway; then he measures eight more running strides back from this check mark and makes a second check mark. Then, standing a few feet back of the second check mark, the vaulter starts his run, hitting the check mark with his left foot. Eight strides should then bring his left foot to the first check mark, and eight more strides should find his left foot striking the take-off mark.

These eight stride check marks must be adjusted until the vaulter hits them unfailingly on his run and strikes the take-off mark with his left foot. The vaulter can get off the ground and make passable jumps if he hits within five or six inches on either side of the take-off mark; but the perfect vault will be made from exactly the right spot, and the athlete who

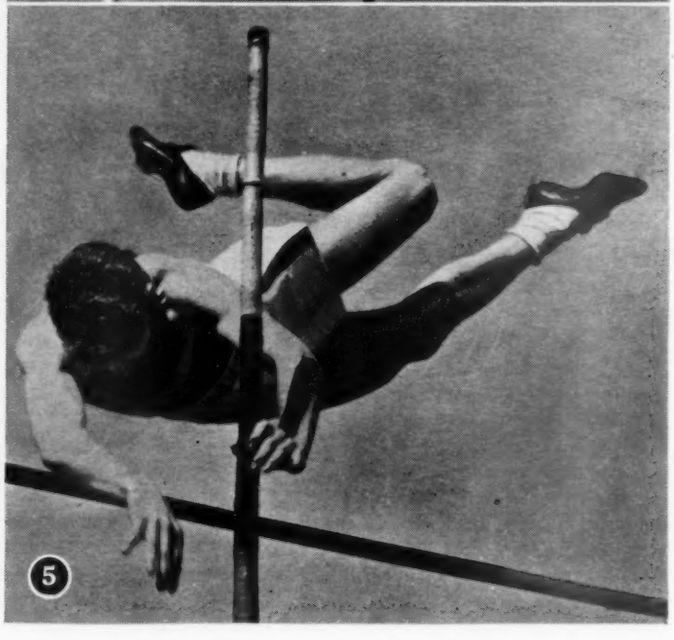


Illustration 1—Keith Brown of Yale University, world's record holder in the pole vault, indoors and out, showing excellent form in the flyaway finish. Note how the pole has carried through on the swing; also the relaxed balance of the vaulter, indicated by the flexed legs and apparent control of the body. (Outdoor record, 14 ft. 5⅛ in.)

Illustration 2—Earle Meadows, University of Southern California pole vaulter, whose best height of 1935 was 14 feet 1⅛ inches. This illustration does not show him in his best form.

Illustration 3—Compare this illustration of William Sefton, University of Southern California pole vaulter, with that of Keith Brown. Both vaulters have accomplished a fine flyaway finish. The similarity of these two pictures, taken of vaulters a continent's width apart, is remarkable. Both reveal the same carry-through of the pole, the same upfling of the arms to dispose of it and the same flexing of the legs.

Illustration 4—This rather unusual picture, snapped from a point directly below the cross-bar, shows Jack Rand of San Diego State College leaving the pole.

Illustration 5—Jack Mauger, University of California pole vaulter, is not shown at his best in this illustration.

Illustration 6—Cornelius Warmerdam, Fresno State College pole vaulter, is shown making use of the body arch finish to good effect. Note that his left leg is swinging down to help with the body arch; the right leg is flexed, throwing the weight of the body onto the arms and shoulders so that they may make use of the final push-off to lift the body clear of the bar. The hands appear to be a trifle too far apart to give the best possible balance. Probably if the left hand had been shifted to about the joint of the pole that shows just

above it, the left shoulder would be higher and the body almost squarely over the pole. A lot of vaulting is shown in this illustration.

Illustration 7—Scott Massey of the University of California at Los Angeles is shown in what appears to be the start of a powerful run. The left elbow seems to be too far advanced, which throws the shoulders out of line to the cross-bar. This fault will undoubtedly be corrected as the vaulter gets under way.

Illustration 8—This and the two following photographs are of Ray Lowry of Michigan State Normal College, who was on the Collegiate Honor Roll for 1934. Vaulters shown in the previous pictures were all on the Collegiate Honor Roll for 1935. In this illustration, Lowry's arms are in good position to begin the pull as soon as the feet reach their fullest height in the swing. The arm pull will not interfere with the swing of the pole; and the pole will give maximum support to the pull.

Illustration 9—The pole has not, as shown in this illustration, come through far enough on its swing, and the vaulter is too far ahead of the pole, which should be under the left armpit at this stage. It is possible that not enough speed was developed during the run to carry the pole through. The right leg is swinging, scissors fashion, across the left to aid in turning the body.

Illustration 10—Although the pole has not come through far enough to give the vaulter the benefit of a good throw-away, Lowry is maintaining his form through to the finish, a habit that oftentimes prevents a bad vault.

Photography of Brown by Paul I. Rubinstein, of Rand by George Booher, of Mauger by M. L. Cohen Co., of Massey by Carroll Photo Service, of Lowry by Joseph Kalec.

perseveres until he can come flying down the runway confident that he is going to hit that spot every time has one more factor in his favor.

Insistence that the athlete become step-perfect in this regard at the beginning of his training will pay heavy dividends later in his career. I have had vaulters who became so automatic in the matter of step that they could hit their take-offs exactly without consciously checking their strides; but in no case did this genius manifest itself until well along in the junior year of college. And please remember that this genius came as a result of meticulous attention to detail, as, I am told, does most genius.

There is another detail that deals with the take-off that may be mentioned here; that is the position of the take-off foot on the ground at the time of taking off. The inside of the left foot should just touch along the line of the projection of the pole upon the ground as it is seated in the box. If the foot is planted to the right of this line your vaulter will be swung in against his pole on the way up, spoiling his vault and scraping skin off his short ribs, or his thigh. At the take-off the left foot should point straight ahead.

Against the wind or on a heavy runway, the strides will be shorter; with the wind at the vaulter's back or on a faster runway than customary the strides will be longer. These conditions must be taken into consideration in adjusting the check marks.

The pole may be carried in whichever

(Continued on page 40)

Outfield Play

By Pat Crawford

EXPERT outfielding requires certain qualities characteristic of all good baseball players, such as the healthy body, large hands, speed and strong throwing arm. Ideally, the outfielder is a proficient hitter, a speedy runner, an excellent judge of fly balls and a player of unquestionable judgment in throwing to bases.

Selecting a large glove made of fine materials, by pounding his bare fist or a baseball into the palm of the glove, the outfielder forms a deep pocket. The glove and a pair of sun glasses constitute all the paraphernalia essential to outfielding.

Preliminary Study

AS he goes to his position, the outfielder notes the direction and velocity of the wind; the contour and condition of the playing surface; the position of the sun; the angles of the walls and fences from which balls might rebound; the distances from the foul lines to the stands, and from his playing area to such obstructions as walls, fences, scoreboards and flag poles; the locations of all obstructions; and the resilience of surfaces from which balls are likely to rebound.

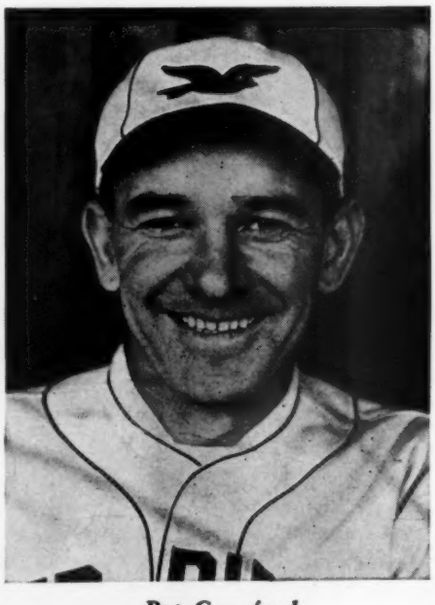
He has already made a study of the opposing hitters and shifts to a position from which he will be able to field the greatest number of balls. By a signal from the shortstop or second baseman, he learns the pitch which has been called for by the catcher. He notes the count on the hitter, and he shifts accordingly; that is, if the count is three balls and one strike, or two balls and no strikes, the batter will generally hit the ball differently from the manner in which he will hit on a count of two strikes and no balls, or on a count of two strikes and one ball. This knowledge of the hitter, the pitch and the count enables the outfielder to get a jump on a ball hit in his direction.

Fielding Fly Balls

ASSUMING a slightly crouched position with his weight equally distributed on the balls of his feet, the outfielder is prepared to start quickly in any direction. Inasmuch as he watches the hitter's swing and hears the crack of the bat, he is able to determine very accurately the direction and distance he must travel to field the ball. When the ball is hit toward an outfielder, he pivots on the foot in the direction of the break and sprints to the spot where he has judged the ball should be fielded, getting to that spot as quickly as possible.

He has observed that balls curve considerably when hit on certain parts of the bat, and also that balls hit on certain parts of the bat bound irregularly upon striking the ground. He determines as quickly as possible whether he will be able to get to the ball, and, after seeing that he can field it, yells loudly several times, "I have it!" If, on the other hand, while determining whether or not he can reach the ball, he hears another fielder yell, "I have it!" he yells loudly several times, "Take it!"

He takes all fly balls he can field back of the infield, as he has the plays in front of him, whereas an infielder has to go back in fielding these balls. If several players call for a ball back of the infield, an outfielder near the play calls the name of the player who he believes to be in the best position to field the ball, and immediately all other players get out of the designated player's path and call for him to take the ball.



Pat Crawford

In going after a fly ball, the outfielder runs on his toes, glides under the ball and, whenever possible, catches the ball in front of him. The position of his hands and arms in catching the ball depends upon the elevation and direction of the ball, and the distance the outfielder has to travel to field it. Whenever possible, he supinates his hands, raises his relaxed arms and hands forward and upward, and keeps his eyes on the ball until it settles in the palm of his glove. As the ball strikes the glove, he clasps it with his bare hand and permits both hands and arms to give with the ball and at the same time draws them to his abdomen.

There are times when it is necessary for the outfielder to field balls with the hands pronated; that is, on line drives in front of him or to either side. But, in any case, the techniques are similar. Occasionally it is expedient for him to field balls with one hand but, insofar as possible, he always uses both hands. In going back to his right, he pivots on the ball of his left foot, draws the right leg back and sprints to the spot where he believes he should field the ball. On an exceptionally hard hit ball, he turns his head, sprints a few paces, looks over his shoulder and gets under the ball as quickly as possible.

Outfielders coach each other in going after fly balls, particularly where there are obstructions, by yelling, "Plenty of room!" or "No danger!"

In case an important run is on third base, with one man or no man out, an infielder will not catch a long foul fly.

He is familiar with the following common errors in fielding fly balls: making an unsuccessful and daring attempt to catch

Roy Blades, manager of the Rochester baseball club. Blades is an outstanding outfielder, having once played with the St. Louis Cardinals. He managed the Columbus Red Birds to American Association championships in 1933 and 1934. Blades is shown in this illustration taking a short step in starting forward for a fly ball.

a fly ball between the infield and outfield with an important run at the plate, thereby enabling the player hitting the ball to reach scoring position; permitting infielders to go back on a fly ball which the outfielder could field; fielding a fly ball with one hand when he should use both hands; running backwards on a ball when he should turn and dash back, turn around and field it, or field it over his shoulder while running with the ball; traveling at such a rate as to field the ball on the run, which often makes the play appear difficult, rather than getting under the ball and waiting for it to come down; and, most common of all, taking his eyes off the ball before it strikes his glove.

Fielding Ground Balls

IN fielding ground balls, the outfielder gets in front of the ball as quickly as possible. With his weight equally distributed on the balls of his feet, his arms and hands relaxed, his hip and knee joints flexed and his eyes fixed on the ball, he fields it with both hands supinated. As the ball strikes the glove, he clasps the ball with his bare hand. His arms and hands give with the ball and, as he assumes the upright position, he shifts his feet so as to get his body behind the throw, draws back his throwing arm and throws to the proper base.

On irregular playing-surfaces, he does a full knee bend and is satisfied to block the ball. It requires considerable skill to play ground balls which carom off obstructions, but a study of the resilience of materials out of which they are constructed will aid in solving the problem. During practice sessions, it is wise to have outfield hitters hit balls against the walls and fences so that he can get training in fielding them.

He is cognizant of the following common errors committed by outfielders in fielding ground balls: taking the eyes off the ball before it strikes the glove; needless haste in fielding a ground ball; playing the ball to his side rather than in front of him; and overrunning ground balls.

A GRADUATE of Davidson College of North Carolina, Pat Crawford has taken special courses at Springfield College and at Ohio State University. He received the degree of M.A. in Education from Ohio State. Four years of coaching experience at Gastonia, North Carolina, High School and one year at Guilford College, as well as eleven years as a professional baseball player, make him well qualified to write this article on outfield play. Crawford has played with such teams as Toledo, Columbus, the New York Giants and the Cincinnati Reds. He was a member of the championship St. Louis Cardinal team of 1934. Because of illness, he has been forced off the active list and is now serving as secretary of the Columbus Club.

The Proper Play

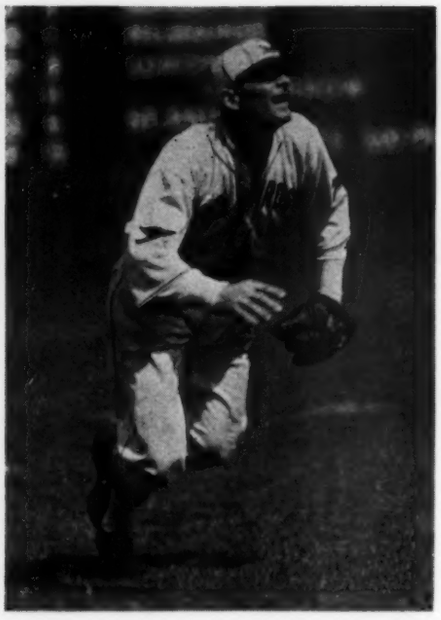
AFTER an outfielder has considered the stage of the game and other factors such as the direction and velocity of the wind, the condition of the playing field, and the abilities of the baserunners, he asks himself this question, "What is the proper play if the ball comes to me?" His decision will be qualified by the type of ball hit, its direction and its velocity. Immediately upon receiving the ball, the outfielder throws the ball overhanded towards the target, in the form of a base or player, the ball reaching its destination on the first bounce.

Earl Smith, formerly with the Columbus Red Birds and the St. Louis Browns, now retired. Smith is shown going to his right after a fly ball. He has pivoted on the ball of his right foot and has taken a stride with his left. His eyes are fixed on the ball.

Estel Crabtree of the Rochester baseball club. Crabtree is shown going to his right. He has pivoted on his left foot. He might have pivoted on his right foot. The correct technique in starting to the outfielder's right or left is a debatable point in baseball circles.

Although a ball may not be hit in his direction, an outfielder has an important part on the play if it is of a nature requiring him to back it up. Many games have been lost by the failure of an outfielder to back up a play. The left fielder backs up the center fielder on all balls hit in the direction of center field, and backs up infielders on all balls hit to the left of the diamond and through the pitcher's box. He also backs up the third baseman on all plays to third base, and the second baseman and shortstop on all plays from the right hand side of the diamond to second base. The center fielder backs up both the right fielder and the left fielder on all balls to them, the infielders on all balls hit through the middle of the diamond, or to the second baseman or shortstop, and all plays to second base. The right fielder backs up the center fielder, the infielders on all balls hit to the right side of the diamond, all plays to first base and all plays to second from the left hand side of the diamond.

The outfielder knows each hitter's strength and weakness, how each pitcher pitches to each hitter, the catcher's sign on each pitch, and the play, if any, to be made to a base. The shortstop and second baseman relay the signs to the outfielders, the second baseman giving them to the right fielder and the center fielder, and the shortstop giving them to the left fielder. The outfielders do not shift upon the re-



George Selkirk, formerly with the Columbus Red Birds, now with the New York Yankees. Selkirk has started on his left foot, taken a short step with his right foot and is in position to sprint forward for the ball.

ception of the signs for fear they will tip-off the pitch. However, the outfielders are able to get a jump on the ball by reason of this information.

It is suggested that players desirous of becoming outfielders observe proficient outfielders in action and study their technique in fielding fly balls and ground balls, throwing to bases, backing up plays and coaching each other; also, how they play fly balls in the sun and wind. Then the young players should practice these skills constantly. Proficiency in outfielding requires persistent and diligent practice.

Case Studies in Outfield Play

THE following case studies in outfield play may prove helpful to young players.

1. Last half of eighth inning; score 6 to 5 in favor of visiting club; no outs, no one on base. Hitter hits a fly ball back of second base. Center fielder dashes in and attempts a diving catch but fails to hold the ball. Hitter gets two bases; later scores tying run. Home team wins in the tenth inning, 7 to 6.

The proper play was to take no chance. The center fielder should have fielded the ball after it had struck the ground and held the player to a single.

2. Last half of the seventh inning; score 4 to 3 in favor of the visiting team. A speedy base runner is on second base; two are out. Hitter singles to center field. The center fielder makes a play for the base runner at home plate and throws the ball too high for a cut-off play. The runner is safe. The hitter goes to second on the throw to the plate and later scores the winning run.

The proper play was to throw the ball to second base, thereby keeping the winning run out of scoring position. If the outfielder was throwing to the plate, he should have thrown low for a cut-off play.

3. Same set-up as in Case 2 except that the ball is hit to the right fielder. He throws home but throws the ball low so that it can be handled by the first baseman for a cut-off play, thereby holding the hitter at first base.

This was the proper technique in making the play.

4. Line drive is hit to the right fielder. Apparently it is an easy chance. The center fielder, seeing the right fielder under the ball, fails to back up the play. As the right fielder is about to catch the ball, it gets in the sun and he loses the ball. It rolls to the fence, and the hitter gets a triple on the play.

The proper play was for the center fielder to back up the play, thereby holding the player at second base. After the right fielder missed the ball it should have been only a double.

5. Last half of the ninth inning, runner on first base, one out, score 2 to 1 in favor of team in the field. Hitter singles to left field. The left fielder momentarily fumbles the ball and, having previously made up his mind to throw to third base, he picks up the ball hurriedly and throws to that base. The runner is safe at third. The hitter takes second on the throw, and a single scores both runners.

The proper play was for the outfielder to play the ball to second base unless reasonably certain he could get the man at third.

Charles "Chick" Fullis of the Columbus Red Birds, one of the best judges of fly balls in the game. Fullis is shown running forward to make a catch. Ordinarily a smooth and graceful runner, Fullis, as shown in this illustration, has his right arm unduly tightened.

De Witt "Bevo" LeBourveau, former Columbus Red Birds outfielder, now retired. LeBourveau has pivoted on the ball of his left foot, drawn his right leg back and is in position to go back to the ball. It might or might not have been necessary for him to turn his head in going after the ball as he ran back.

6. Last half of the ninth inning, score tied, one out, base runner on third base. Hitter hits a long fly down the left field foul line. There is no chance to throw out the runner after the catch. The ball is on the line apparently and it is difficult to determine whether it will land foul or fair. The left fielder catches the ball, and the runner on third scores.

The proper play was to let the ball hit the ground, as, regardless of whether the ball was foul or fair, the runner would score if it were caught.

7. Runner on third base, one out; fly ball hit to left field. There is a chance to throw out the runner. The left fielder does not get directly under the ball, but remains back of the ball a short way, gets a running start, plays the ball with his hands pronated, but, being overly anxious to throw the ball, he takes his eyes off the ball and fumbles it.

The outfielder should not have taken his eyes off the ball. He did not get under the ball as quickly as possible. He should not have attempted to catch the ball with his hands pronated.

8. Last half of the ninth inning; score tied, speedy runner on second base, two out. Hitter singles on the ground to left field. The left fielder plays the ball safe and his throw to the plate is late.

The proper play was to dash in and play the ball hurriedly and take the chance of fielding it cleanly, in which case the outfielder would have had a chance to get the runner at the plate. Too much time was consumed in playing the ball safely.

9. One out, first and second bases occupied. Hitter hits a short fly into left field.

The runners have to remain close to their bases. The left fielder drops the ball intentionally. The runner on second returns to second base. The left fielder plays the ball to the second baseman, who tags second base and then tags the runner on second. The runner on first, seeing the ball dropped, starts for second, but the ball reaches second before he does. The runner originally on first is forced out at second base by the second baseman tagging the base, but the runner originally on second is safe.

The proper play is as follows: If the runner on second breaks for third base, the outfielder should throw to the third baseman, who in turn throws to second. However, if the runner on second returns to second, as he did in this case, the outfielder should throw the ball to the second baseman or shortstop covering second, who in turn tags the runner on second and then steps on the base, thereby completing the double play. If the base is tagged first, the force-out is eliminated and the runner originally on second base may remain there. If both runners are on second base when the ball gets there, a double play is not possible and, even though both are tagged, the runner originally on second is the only runner out.

10. A ball is hit to right center field. Both the right fielder and the center fielder sprint for the ball, each determined he can field it. Accordingly each yells, "I have it!" at the same time, and neither yells any more. Each keeps after the fly ball, and the result is a collision.

The proper thing to have done was to yell several times very loudly, "I have it!" the outfielder yelling first to take the ball, while the other one yells several times very loudly, "Take it!"

11. Ninth inning, score tied, one out and the winning run on third base. The left fielder is occupying the position he generally occupies with this particular hitter at bat. The batter hits a line single which strikes the ground a few paces in front of the left fielder, and the winning run scores.

The left fielder should have moved in several paces before the pitch, because a fly ball fielded where he generally plays would have scored the runner anyway. By moving in, he would have been in position to field a line drive over the infield which he ordinarily would not field. Such would have been the case had the left fielder been alert to the stage of the game.

12. Ninth inning; score 4 to 1 in favor of the team in the field; two out, three men on bases. Outfielders move back several paces from their regular positions. The batter hits a ball to the right of the left fielder. Two runs score, and the runner on first base goes to third, but the hitter is held to a single. The ball is played to second base. The next hitter is out on a fly ball.

The outfield moved back to reduce the chances of the hitter getting an extra base hit which would have scored all the runners, and the winning run would have reached either second or third, as the ball would have been a long double or a triple had the outfielders been playing in their regular positions.

Net Play in Tennis

By Paul Bennett
Northwestern University

TWO previous articles by Paul Bennett, published in the March and April issues, were "Ground Strokes in Tennis" and "The Serve in Tennis." In this article, Mr. Bennett discusses play at the net. The action photographs which illustrate this article are of two of Mr. Bennett's most promising pupils, Russell and George Ball. This year, as juniors at Northwestern University, they will be followed with interest in both singles and doubles play. Mr. Bennett has been instrumental in bringing the Intercollegiate Tennis Championships of the United States to the Northwestern Courts in Evanston, Illinois, this year for the second successive time.

IN playing at the net in singles, the player should keep his position balanced until he sees where his opponent is going to hit the ball. If the ball is to the right of the player at the net, he should keep to the right of the center line; if the ball is to the left of the player, he should keep to the left of the center line; and if the ball is in the center of the court, the player at the net should be in the center. The extreme distance to move right or left should be about three feet from the center line. To maintain his position, the player should skip back and forth, if possible, rather than turning the body and running sideways to the net.

If possible, the net player when volleying the ball should have his body partially or wholly sideways to the direction in which the ball is going to be volleyed.

The distance from the net should be from six to ten feet. If the player at the net thinks that his opponent is going to try to pass him, the net player should move in a little closer to the net. In any case, the net player should be ready to move back for a possible lob by his opponent.

For quick action at the net, the player should keep his knees bent, his eyes on the ball and the racket up in front of him. His left hand or arm should help to get the racket started into position for the stroke.

The movement of the racket when the player is at the net is a semi-swing with mostly the forearm and wrist being used.

The ball should be met in a plane in front of the body. At the moment the opponent is ready to hit the ball, the net player should be set so that he can move quickly to the right or left, or back.

In making an overhead smash, the player should get his body sideways to the direction in which the ball is going to be hit; should move back sideways by skipping rather than by moving backwards; and should take a position slightly back of where the ball is going to be met. He should let the ball come down as though it were going to hit him on the forehead. The technique of hitting the ball is then the same as when serving. (See "The Serve in Tennis," April, 1936, issue.)

In making a lob, the same technique as in ground strokes is used except that the racket should have a slight rise on the forward swing and the face of the racket should be tilted back. (See "Ground Strokes in Tennis," March, 1936, issue.)

A chop is made with the same technique as are ground strokes except that the racket is up on the back swing and the forward swing is downward, with the face of the racket slightly tilted back at the time of impact. The direction of the swing is distinctly forward.

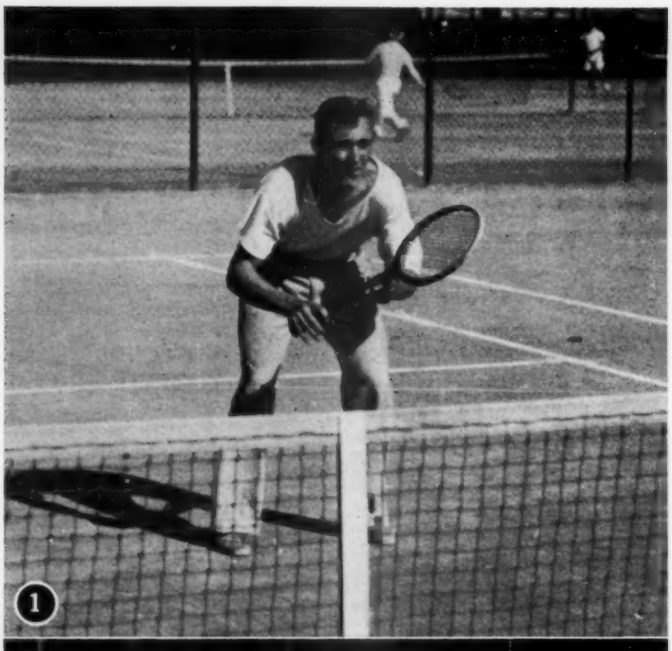
A slice drive is made, roughly, the same as the forehand and backhand drives except that the face of the racket is tilted slightly back at the time of the impact.

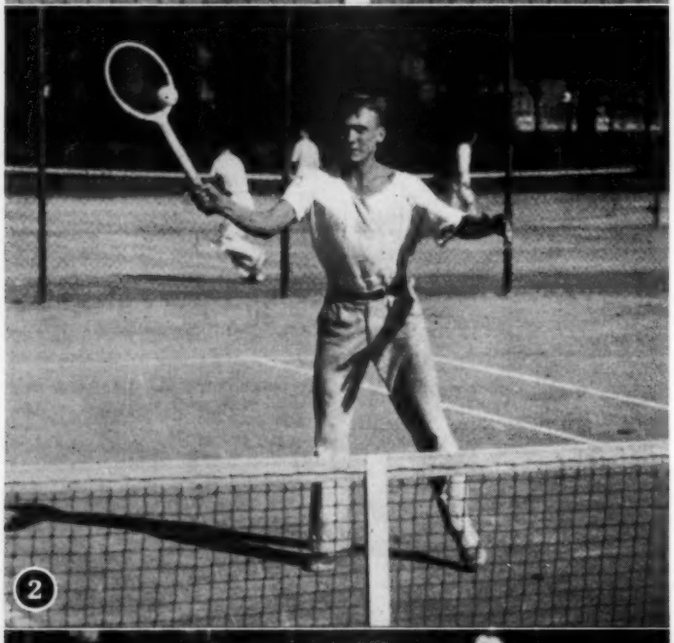
To build a good game of tennis, a player should, first, learn the technique of the various strokes; second, he should get control, that is, make the ball go where he wants it to go; third, he should speed up his game.

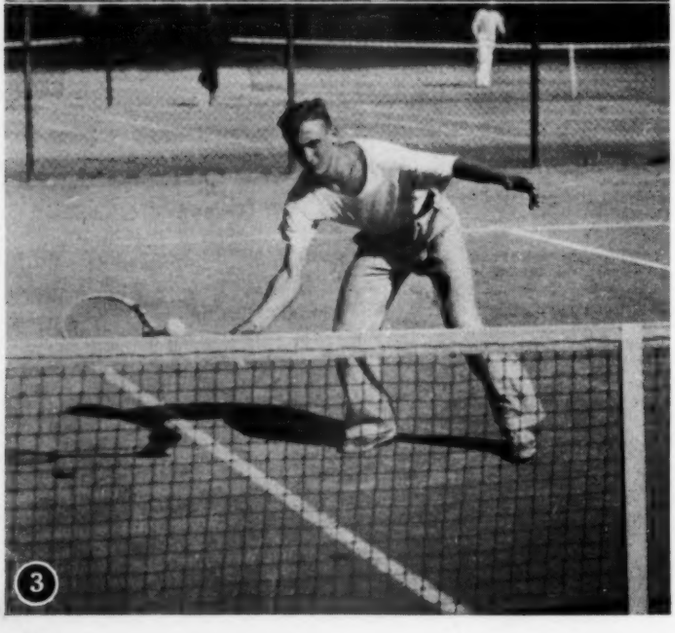
The following suggestions should be helpful for competitive tennis:

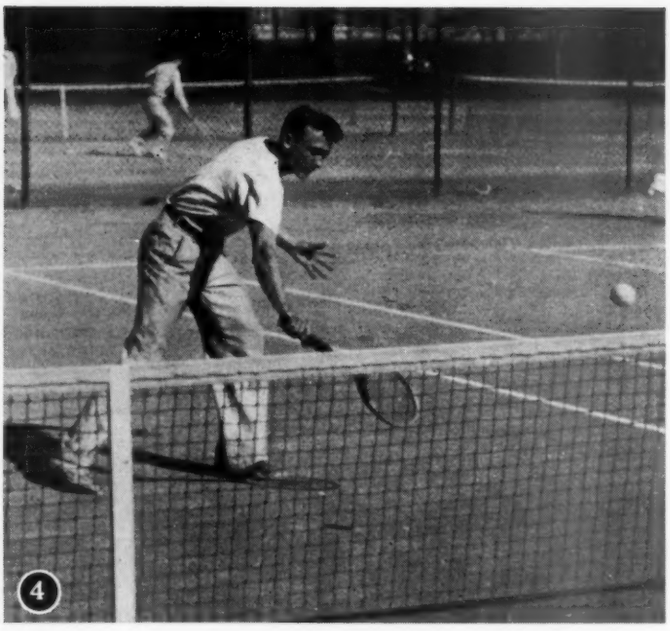
1. Study your opponent at all times for weaknesses.
2. Play those weaknesses.
3. Make your opponent play your type of game.
4. Keep your court balanced. (Do not run around your forehand or backhand strokes.)
5. Change your court tactics only when losing.
6. Keep your body relaxed and your brains working.
7. Be a lady or gentleman at all times.

EDITOR'S NOTE—In "Ground Strokes in Tennis" in the March issue, the last sentence in the third paragraph should read, "The Eastern forehand and backhand grips are shown in Illustrations C and D."









Net Play

Illustration 1—George Ball, Northwestern University junior, is shown in position at the net.

Illustration 2—Ball is shown meeting the ball in a plane slightly in front of him.

Illustration 3—The player is meeting the ball on his right. His eyes are on the ball and the weight of his body is on the right foot, the side on which the ball is coming.

Illustration 4—The player, with his eyes on the ball, is meeting it on his left side. This time his weight is on his left foot, as the ball is coming to his left side.

Overhead Smash

Illustration 5—Russell Ball, Northwestern University junior, is moving into position for an overhead smash.

Illustration 6—Ball is now nearly in position. His eyes are on the ball.

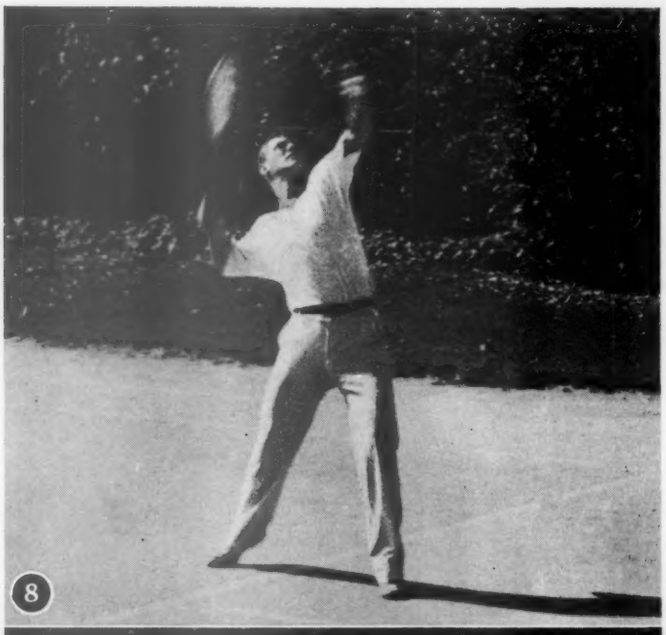
Illustration 7—The player is now in position and getting set for the stroke. His racket is ready to start down.

Illustration 8—The racket has gone down and back and is now going up, describing a big loop.

Illustration 9—The racket has gone down again, describing a second or small loop, and is now ready for the actual smash. The movement of the arm and racket is so fast that, as demonstrated in this and the next illustration, even a fast motion picture camera is unable to follow it clearly.

Illustration 10—The actual smash is shown here. The position of the ball is indicated by a white blur. The player's weight is going forward as the smash is made.

5

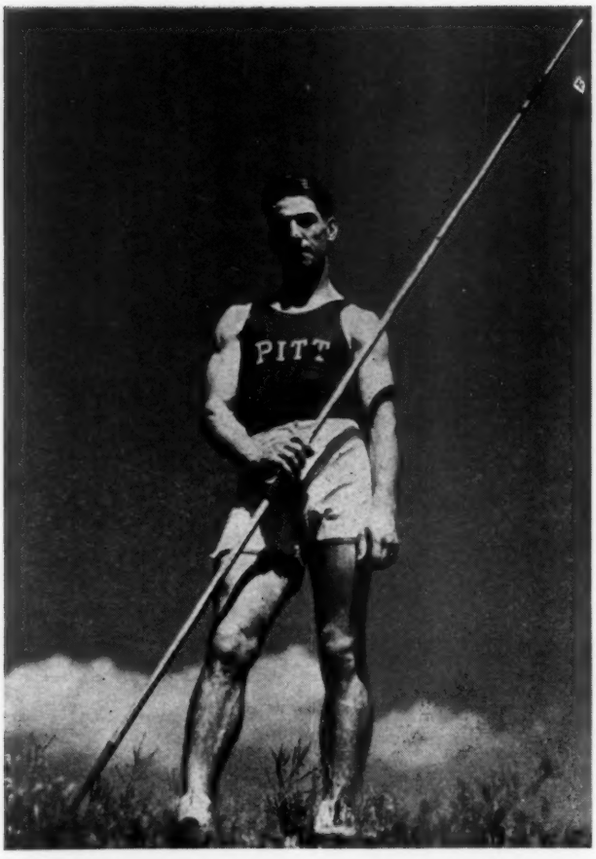

8

6

9

7

10



Charles Gongloff of the University of Pittsburgh, the National Collegiate Athletic Association champion of 1935. In winning his event in the National Collegiate Meet, Gongloff threw the javelin 221 feet 3⅛ inches.

Teaching the Javelin Throw

By Carl Olson
University of Pittsburgh

THE javelin throw is the most recent weight event added to the track and field program. It was introduced by the Swedes in the early part of this century, and the event soon became universally popular. The Swedes naturally predominated for many years; but, after the introduction of the javelin throw into the Athenian-Olympian Games at Athens in 1906, other nations learned the technique, so that today the Finns are the outstanding javelin throwers of the world.

With the further popularization of the event, it is to be hoped that the United States in the near future will be able to boast a good Olympic place winner, if not actually a champion. That progress has been made may be seen by the number of athletes who are now throwing over 200 feet. This distance was rarely reached ten years ago.

There are three generally accepted methods used in this country in teaching the javelin throw. They are, as far as footwork is concerned, the rear cross step, the hop step and the Finnish method or front cross step. Two different methods of carrying the javelin are above the shoulder and in the extended arm with the javelin below the shoulder. These techniques will be discussed more at length later in this article.

Each system has its advocates; but, in the final analysis, it is the strong and vigorous type of boy who makes the method either a success or a failure. Size enters into javelin throwing to a certain degree. Very few men weighing less than 160 pounds and not many over 200 pounds become champions. Strength, suppleness, agility and speed are the main physical requisites. The desire to excel must always be uppermost in a boy's mind. The type of boy who has the greatest chance to succeed is the one who has done hard work, whereby the muscles of his arms, shoulders and back have been well developed. This muscular development is usually found in boys who have labored on farms or in mines, or who are all-around athletes. To become proficient, a boy should keep active physically, because, without exercise, the tone of the muscle is lost, and the response of this type of muscle is too well known to need further mention.

The practice schedule of a javelin thrower should be a varied one. It has been the writer's experience that most javelin throwers wish to confine all their practice to continual throwing. Unless a boy is closely watched, he is apt to wear himself out by the time he should be on

GRADUATING from Springfield College in 1917, Carl Olson became a physical instructor in the United States Army during the World War. From 1922 to 1932, he coached at Froebel High School, Gary, Indiana, where the track teams directed by him won six sectional titles, five state titles and two outdoor and two indoor national titles. Since 1932, he has developed strong teams at the University of Pittsburgh, the 1934 track and field team being undefeated and the cross-country team winning the National Junior Championship in 1934. Among the outstanding track and field performers coached by Olson is Charles Gongloff, National Collegiate Athletic Association javelin champion of 1935. In addition to being Varsity Track and Cross-Country Coach at Pitt, Olson is Assistant Professor of Physical Education.

Illustration 1—John Mottram of Stanford University, second place winner in the National Collegiate Meet with a throw of 214 feet 11⅜ inches. The position of the javelin across the chest is illustrated in this picture. The point of the javelin should be held about two inches higher, however.

edge for the keen competition of a championship meet later in the season. A boy who can participate in several other events during the dual meet season has an advantage over the one who merely throws the javelin, in that his interest and enthusiasm will last throughout the season; while the boy who indulges in one event alone will often become careless in his work.

After the athlete has passed through the preliminary stages of training and the dual meets have started, I believe three days of throwing are sufficient—two practice sessions and the competition itself. The practice sessions should come on Tuesdays and Wednesdays. Particular attention on these days should be paid to checking up on the marks, working on form and developing proper timing. The athlete should work on the adjustment of speed with the final heave, and at the same time work on relaxation before the final effort is made. This takes much time and effort, and only religious adherence to practice will make possible this attainment. On these two days, no throwing for distance should be attempted. It is sufficient if the athlete saves his best efforts for the day of the meet. Many boys during the cold spring season make the mistake of not warming up enough; as a result, a muscle is pulled, and the athlete

Illustration 2—In this second picture of Mottram, taken from the front, the Stanford athlete is illustrating the follow-through after the release of the javelin. In addition to placing second in the National Collegiate Meet in 1935, Mottram threw the javelin 213 feet 1 inch to win the I. C. A. A. A. A. championship. In a dual meet he hurled the spear 218 feet 1¾ inches.

Illustration 3 — Clarence Rowland of Fresno State College, winner of the javelin throw in the West Coast Relays of 1935 and third place winner in the National Collegiate Meet. In this illustration, the javelin has just been released. Rowland is getting fine height but does not seem to have his body behind the throw as much as he should.

is incapacitated for the rest of the season. It is better to warm up too much than not enough. It is well to give the athlete a good rub, especially in the shoulders, arms and back, on a chilly day. Stress warming up!

On Mondays and Thursdays, jogging around the track a couple of laps, fifteen minutes of calisthenics and working out with the sprinters and jumpers are usually sufficient. The athlete should do an amount of work which will leave him comfortably tired as he goes to the showers. On Friday afternoons, I advise complete rest.

There are several good exercises helpful in the development of muscles used in this event; exercises especially good for the development of the wrists, arms, shoulders and the back. They are as follows: rope climbing, pulley weights, wood chopping, hoeing a garden, painting and clean-

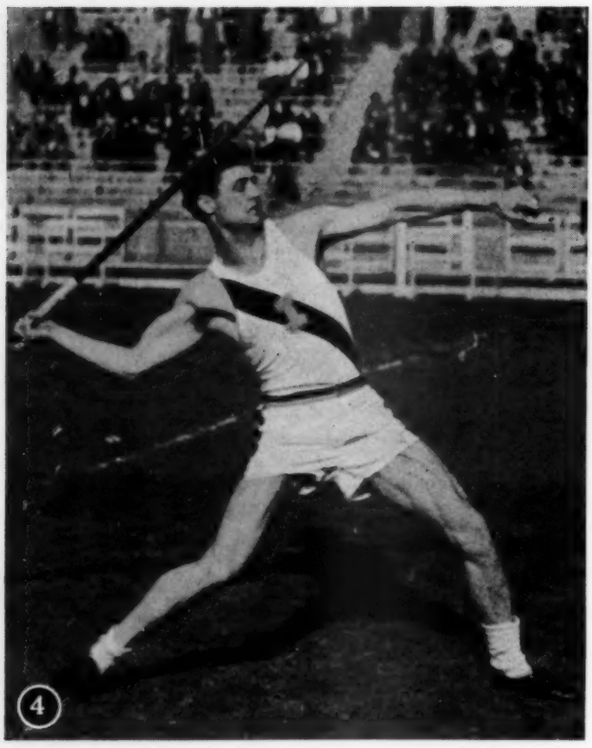


Illustration 4—Mark Panther of the University of Iowa, winner of the Western Conference title with a throw of 219 feet 7⅜ inches and of the Central Intercollegiate championship with a throw of 213 feet 8 inches. He placed eighth in the National Collegiate Meet with a throw of 204 feet 8 inches. Panther is just beginning his final effort. His arm position at this stage is very good. The point of the javelin is a little too high, however.

ing wall paper. These exercises may be simulated if there is no opportunity to perform the real work.

Now to review hurriedly the various techniques: Most coaches today are teaching their men to hold the javelin above the shoulder, with the implement pointed down at a slight angle across the middle of the chest. For this reason I shall omit the description of the under shoulder or extended arm carry. Holding the javelin above the shoulder is easier on the athlete because he has to think only of throwing the missile. In the extended arm carry, the javelin interferes with the thrower's equilibrium by constantly scraping the ground on his run to the scratch line.

There are two different methods of holding the javelin before the release of the spear. In the first the javelin proper is held near the end of the binding with the forefinger and the first joint of the thumb over the end of the cord and the first joints of the remaining three fingers in contact with the cord. In the second method, that used by the Finns, the middle finger is behind the grip, the forefinger along the shaft, and the thumb either fully encircling the shaft or alongside of it. The other two fingers are as described above. This method is well illustrated in the picture of Woodrow Clark of the University of Richmond. See Illustration 6.

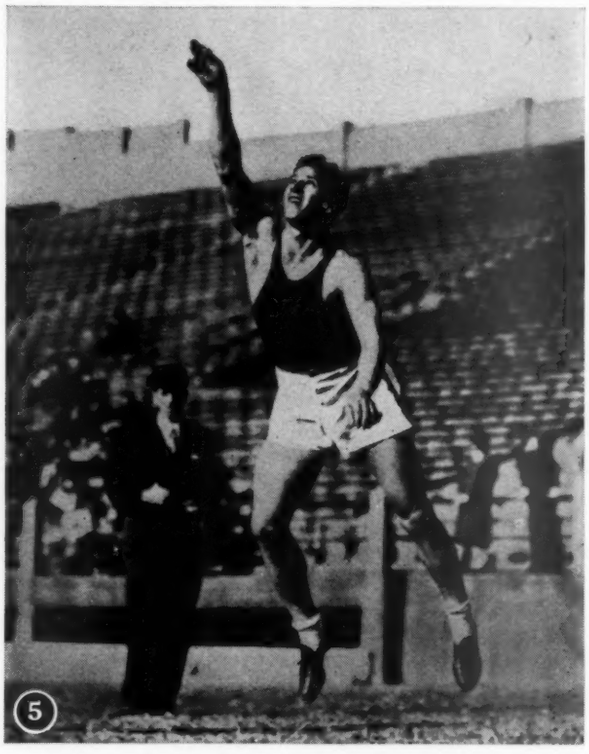


Illustration 5 — Another view of Panther of Iowa. He is demonstrating very good form in the release. This is an exceptionally good picture of the final effort in throwing the javelin. Notice the follow-through or reaching for the javelin after it has left the hand of the thrower.

Illustration 6—Woodrow Clark of the University of Richmond, who threw the javelin 213 feet 8½ inches in the 1935 Junior National Amateur Athletic Union Meet. He also placed fifth in the National Collegiate Meet. Clark is giving a fine demonstration of the manner in which the javelin may be held. Notice how his head is tilted to allow an overhead release.

The footwork in the three systems mentioned is important. If a boy is able to hit his check marks accurately, he is able to take advantage of every inch possible in competition. The first method to be considered is the rear cross step. Between fourteen and eighteen feet before the scratch line is reached, the left foot is pointed toward the right, the right foot is placed to the left and behind the left foot, a step is taken forward with the left foot, and the throw is made off the right foot as it ends in a delayed reverse with the release of the javelin. See Diagram 1.

In the ordinary hop step, the hop is made on the right foot. As the right foot reaches the ground, it is turned to the right; and the left leg is extended straight ahead in a stride position. From this position the throw is made, followed

with a reverse to its conclusion. See Diagram 2.

In the Finnish form, or the front cross step preparatory to the throw, the left toe is turned to the right; the right foot is brought forward in front of the left (notice the difference with the rear cross step) practically parallel to the scratch line. Then the left foot is brought forward approximately at right angles to the scratch line. From this stride position, the throw is made, finally ending in a follow-through or a semireverse. See Diagram 3.

The similarity in all three forms is the long stride position taken before the release of the javelin. When this position is assumed, it seems to me the same method should apply to all three as far as the actual throwing is concerned. The arm should be extended to the rear to its fullest extent, the javelin nearly touching the ground. This method is well illustrated in the picture of Clark. By beginning the throw from this position, it is evident that the back muscles are brought into play, and the highest efficiency is gained from the throw. The arm is

Illustration 8 — Another view of Daneri of Oregon State College, who placed sixth in the National Collegiate Meet with a throw of 210 feet 11 inches and who won a dual meet with a throw of 219 feet 4 inches. This is a fine demonstration of the correct method of holding the javelin for an overhead throw.

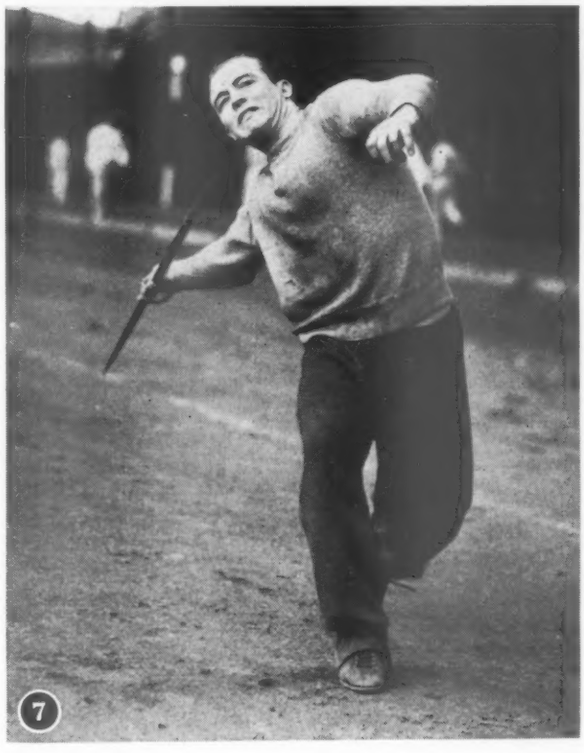


Illustration 7 — James Daneri of Oregon State College. Daneri is giving an excellent demonstration of going into the stride position, ready for the throw. His arm will be completely straightened out as his left foot comes forward. Daneri is the ideal type of javelin thrower.

Illustration 9 — Norman Fitzgerald of the University of California. Fitzgerald's best official throw of 1935 was 211 feet, made in a dual meet. Ten years ago, few American athletes were able to throw the javelin 200 feet. In this illustration, the thrower is shown completing his reverse. Like other javelin throwers who are pictured on these pages, Fitzgerald was on the Collegiate Honor Roll for 1935.

brought forward and the javelin passed above the ear and across the center of the body. The release should be effected as high as possible, so as to get the javelin started in its flight at as high an angle as possible consistent with common sense. Everything else being equal, the athlete getting the javelin started from a high position is usually the winner of the event.

The overhead throw, I believe, rather than the side-arm throw is better from the standpoint of muscular efficiency as well as from the results gained. In the side-arm throw, the control of the javelin is oftentimes lost; the javelin has a tendency to veer to the right, thereby losing the force of the body.

Many critics of the style used by the majority of javelin throwers in this country claim that the Finnish style is most efficient, because the contestants are able to make much more use of their speed than our college boys do. I am not thoroughly convinced on this point. At the National Collegiate Championships in Berkeley, California, last year, Charles Gongloff, University of Pittsburgh, who established a new record of 221 feet 3⅛ inches, used the ordinary hop step. I believe I may say without fear of contradiction that he has as much speed as anyone using the Finnish form.

The Finns, however, besides having excellent form, start throwing the javelin at an earlier age than we do in this country. As a result, their athletes usually enter into competition with a greater amount of experience and a more thorough knowledge of throwing skills. If we are to compete with them on even terms in the future, it is to the high school coaches we have to look for help in beginning the development of our javelin throwers. We must start the boys in the ninth grade in high school; and, with a lighter type of javelin suited for younger boys, we must teach them correct form. Opportunities for competition make for greater skill, and to this I attribute much of the Finns' success. They have built on a sound foundation.

Offenses and Defenses of Olympic Tryout Tournament Teams

By James D. Kelly
De Paul University
and
A. C. Lonborg
Northwestern University

THE eight teams in the final Olympic Games tryouts played at Madison Square Garden in New York, April 3, 4 and 5, employed about every type of offense and defense in basketball.

The winner, the Universal Pictures team from Hollywood, was the only team in the tournament employing a slow, deliberate attack. This team used Lubin, its big center, as pivot man, placing him at either side of the free throw lane. The forwards played in the corners or along the side lines. Lubin scored many baskets during the tournament by fine rebound work. The guards, especially Shy, were very clever at going by the front line either by faking and dribbling, or by passing and cutting fast for the basket. Shy was a good scorer and Swanson a good passer. The forwards shot well from the sides. Knowles, a forward, was a standout as a feeder.

The defense used by the victorious team was man-for-man unless it was necessary to shift on a screen play. Lubin took most of the rebounds and was a good man at this phase of the game, preventing opponents from getting many follow-up shots.

The McPherson Oilers team, the runner-up in the tournament, was the most colorful squad because of the extreme height, speed and basket shooting ability of its players. This team played fast, aggressive ball at all times on defense as well as offense.

The offenses used by this team were all fast-breaking, and consisted of a three-lane fast-break with the forwards down the side lines and the center or one of the guards as the third man. Sometimes the McPherson Oilers used a long pass to a forward breaking down the side line. When going through a set defense, they used three men in and passed in to Fortenberry, a 6-foot 8-inch center, and broke around him. Fortenberry pivoted and shot with either hand. The other members of the team were big and fast, and used the fake and dribble to good advantage.

The defense used by the McPherson Oilers was usually a zone for the first few minutes and then a very aggressive man-for-man defense, sometimes all over the floor. This team was very clever at intercepting and batting down passes. All its players seemed to be able to sense just when the ball was going to be passed. Fortenberry and Schmidt, both tall men, played around the basket most of the time and could go above the basket to stop shots.

Washington, Wilmerding and De Paul

THE University of Washington at Seattle was the only college team that seemed to be at its peak during this tournament. Men on this team played a fast-breaking game all the time and were good ball handlers and shots, much of their shooting being of the one-handed variety. In their opening game they had a 50 per cent average on shots from the field. When going through a set defense, Washington players used a revolving offense, shooting over screens. All players seemed to be in excellent shape and played hard all the time.

The Washington defense was strictly man-for-man. Except possibly the center, the men did not shift. They seemed willing to trade shots with their opponents.

The Wilmerding Y. M. C. A. team, fourth place winner in the tournament, which had previously been defeated by the Denver Safeways in the Y. M. C. A. tournament, got in the tournament at the last minute, as the Safeways were declared ineligible. This fact prevented Wilmerding players from being in the best possible shape. They used the fake and dribble a lot with an occasional fast-break. All were good shooters, Evans getting twelve baskets in their opening game.

Wilmerding was the only team to use a strictly 3-2 zone defense in all its games. This type of defense did not seem to be very effective, as all teams seemed to know how to penetrate a zone defense. Lack of condition and injuries hurt this team as the tournament progressed.

De Paul University of Chicago opened the games at 5:30 P. M., Thursday, April 3, against the University of Washington. De Paul used set floor plays with an occasional fast-break. This team used three men through and employed the pivot play a great deal, with either the guards or forwards passing to Yost, the center, and breaking around for a return pass. Yost also faked and shot one-handed shots, usually turning to his left.

THIS analysis of the play of basketball teams which competed in the Olympic Final Tryouts in New York City, April 3, 4 and 5, is by two prominent Middle Western coaches. James D. Kelly coached his De Paul University team through a successful regular season, and then through two preliminary Olympic tryout tournaments before entering the finals in New York. A. C. "Dutch" Lonborg is well known for his success in coaching at McPherson College, Washburn College and Northwestern University.

This man played along the free throw lane. De Paul players did not shoot very well from the field and also were off on free throws.

The De Paul defense was man-for-man, the players changing on screens. Yost was pulled out from the defensive basket by Washington's milling offense, and Washington was able to score some baskets on rebounds.

Utah State, Temple and Arkansas

UTAH State Agricultural College, Rocky Mountain Conference champion, got into the tourney by winning two out of three games from the University of Kansas. Players of this team were big and fast, using tip-off plays to start their fast-break when they could control the ball. Their passing was very fast. They used a good deal of spot passing; in fact, they lost their first game by too much passing after they had built up a nice lead in the early part of the game, giving up chances to shoot in order to pass. Their passes were intercepted. Their defense was man-to-man and was very loose, as most of the teams in their section of the country are willing to trade shots with their opponents. It is the rule rather than the exception for the two teams in a Rocky Mountain district game to score over one hundred points in a game.

Temple University was another team with a big center, Meyer Bloom, and a great shooting forward in Don Shields. This team was unfortunate in playing McPherson in its first game, and the Oilers had run up a lead of twenty points before Temple could get its offense started. Temple was the best set shot team in the tournament, with its cutting given a lot of protection by the so-called pick-off which is called only in the East.

The defense used by Temple players was man-for-man, but they were not prepared for the rushing, fast-breaking game used by the Oilers and looked very bad during the first half. They came back in the second half with a great rally that brought them up within three points of their opponents, but then the Oilers started hitting the basket again in the last five minutes and pulled away.

The University of Arkansas was the second largest team in the tourney and started out with a rush, building up a good lead on the Universal Pictures team, but their great player, Ike Poole, who uses a jump-wheel-and-shoot shot, was off on his shooting, and big Lubin of the Universal team recovered most of the rebounds, enabling the Pictures team to control the ball the greater part of the time in the second half. By smart ball handling the Universal team penetrated the Arkansas man-for-man defense for enough close shots to take the lead.

Arkansas players used a large number of long passes and they were all good shots with either hand, but, like most of the rest of the college teams, they looked as if they were past their peak.

The international rules, which govern Olympic basketball games, differ somewhat from the present code in use in the United States in that the 10-second rule and the 3-second rule are not observed. The court where the Olympic tournament will be played in Berlin will be approximately 90 by 50 feet. Only seven men will be allowed on the team for any one game, and, if a player is taken out of a game, he may not return.

The Physics of Baseball

By Ralph B. Waterman
Drayton Plains, Michigan, High School

ALTHOUGH this article by Ralph B. Waterman of Drayton Plains High School presents the physics of baseball in a humorous light, many young baseball players might improve their performance if, as Waterman has done, they studied the game scientifically, attempting to learn why things happen, or do not happen.

THE mechanics of baseball have the same underlying principles as the mechanics found in any common physics book. I believe it adds to the fun and knowledge of the game to understand why things happen.

After all, the baseball diamond is just a big physics laboratory, and the players are experimenters doing their laboratory work.

The pitcher is a dispenser of force. We shall disregard his windup, since it is just a matter of style. He is about to put kinetic energy into a leather-covered sphere. Using this energy the ball, as the sphere is known, is to travel a route through space known as its trajectory, and making a straight trajectory anywhere on earth is one of the impossibles. The pull of gravity upon every speck of mass produces the downward curving path that every ball must follow through the air.

Now, you will be inclined to argue this next point, but one ball thrown forward with all a pitcher's might and another merely tossed upward a foot or so will strike the ground together provided they both reach points of equal height in the air. The first may fall more than a hundred feet away, the second at the pitcher's feet. Gravity plays no favorites.

The pitcher who first claimed to be able to throw a curve ball was hailed as a liar. But he proved his claim. Air is a medium of resistance; yet it is an ally of the pitcher, for it permits him to throw an "out," an "in" and a "drop" as well as a "floater."

At the home plate, we will have just a practice ball at first. Wham! It hits the catcher's mitt. What becomes of the energy the ball possessed? Energy can neither be created nor destroyed, you know.

Batter up, now! The laws of the lever are the most important at the plate. The bat is a lever. Depending on how the batter holds it, is it of first, second or third class? Taking batter and bat as one, where is the fulcrum, that most important pivot? Is it the batter's wrists? His elbows? His shoulders? His hips? His toes?

A hit! A hit! Yet why does the ball not knock the bat backward, instead of the bat knocking the ball forward? There is some law about action and reaction (or is it mass times velocity?) that applies here; and balls, bats and batters obey the law to the letter, you may be sure. If the whole were caught by a camera in a still picture, just where would we write the label inertia, where momentum, where moment of force?

We would start upon a discussion of foot-pounds here, but this term is a measure of work, and baseball is only play, you know.

The ball has now left the bat and is in the air. Another trajectory! Now, just what determines the exact line of that bounce off the bat? Many moments went into that moment when hickory and leather met. Did elasticity have something to do with it? (Down with those soft ballers!) And—we hate to mention it—the ball will come down just as quickly as it went up.

There is much more physics—if you really want some more—at a baseball game. Measurements could be taken of the temperature of bleacher seats in the summer sun at 3 P.M.; of the loudness with which the home team hero is greeted as he takes his turn at bat; of the optical laws that govern an umpire's eyesight, when he sees straight and when he does not. Surely there is electricity in a home run, and a shock in a strike-out. The team of physicists (do you call them players still?) runs through the entire book in an afternoon of vigorous exhibition (we call it experimentation) on the dusty "laboratory" of the baseball diamond where Newton is really the umpire and Galileo the coach.

Cecil Cole of San Mateo Junior College winning the mile run in the San Mateo-University of California Freshmen dual meet of 1936. Cole's time was 4 minutes 28.8 seconds.

Junior College Track and Field Athletics

By Oliver E. Byrd

San Mateo Junior College

JUNIOR colleges are on the increase in both numbers and enrollment throughout the United States. Nowhere is this growth of recent years exhibited to a greater extent than in California. Fourteen years ago this state had but 246 junior college students as compared with 36,977 for last year. Other states have likewise seen an increase in the number of junior college students, but the growth elsewhere has been a slower one than in California. Along with this academic growth has come an athletic expansion which has already attracted much attention in certain sections of the country.

In 1934 the author made a study of junior college participation in track and field athletics and found seventy-seven institutions representing twenty-four states active in the sport. Many other colleges reported plans to organize intercollegiate track and field competition in the near future. As the above study was but a statistical sample without complete returns, it may safely be assumed that junior college participation in track and field sports is becoming general throughout the United States.

Junior College Organizations

THE best junior college track and field performances of the past few years have come from the South and West and especially from California. This is largely because it is in these sections of the country that the two year institution has seen its most rapid growth rather than in the more conservative East, traditional home of the academy.

Other factors also operate. The California junior colleges enjoy a long season of outdoor competition that makes for a maximum development of athletic abilities. San Mateo Junior College, for example, includes three indoor meets and thirteen outdoor meets on its 1936 schedule. The milder climate of the South and West also gives these sections a real advantage over other parts of the country, as junior colleges generally do not have access to indoor track and field houses such as the larger universities and colleges of the East possess. For example, Coach I. D. Stockebrand of Independence Junior College writes that Kansas junior college marks would have been much better during 1935 if throughout most of the season the competitors had not been hampered by cold, rain and snow.

In California there is no state junior college athletic conference, but the numerous institutions are organized into northern, central and southern leagues. The northern league is composed of eight colleges, while the southern league has the greatest number of members and it is necessary to divide this league into divisions. Championships are considered for the divisions as well as for the whole conference.

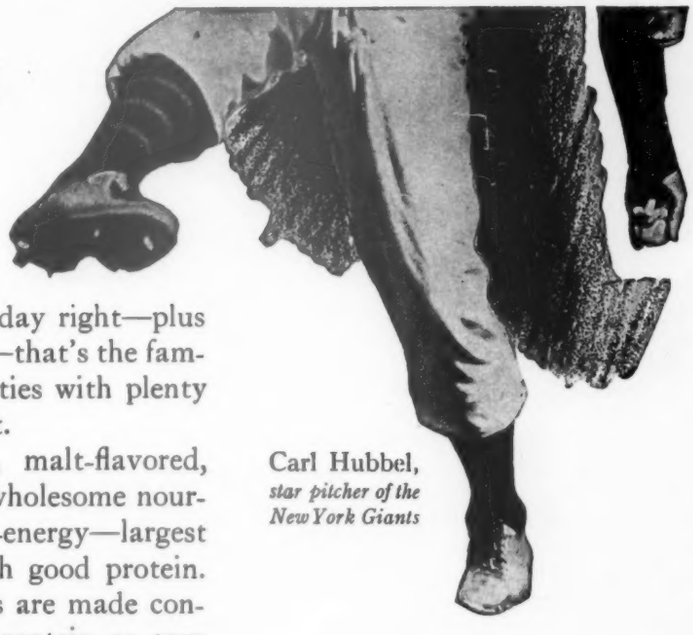
While there is no state conference, the northern, central and southern teams meet in the Junior College Division of the West Coast Relays in what has come to be looked upon as a state meet. The marks

---

AFTER spending his boyhood in Texas, Oliver E. "Tex" Byrd migrated to California and attended Stanford University, where he competed in the half mile run and the high jump. Receiving his A. B. degree in 1929, he coached track at Harvard Military School in Los Angeles and then returned to Stanford to take his M. A. degree in hygiene and physical education. He is now in his fourth year as track coach of San Mateo Junior College. In Byrd's first year at San Mateo, the track team of this junior college finished as runner-up in the Northern California Junior College Conference, in his second year it won the Conference title and also the Junior Pacific Association championship, and in his third year, while placing third in the Conference, it again won the Pacific Association championship.

Here's a real "*Breakfast of Champions*"

for team or private training tables!*



Carl Hubbel,
star pitcher of the New York Giants

WHAT every boy needs to start the day right—plus that "come-back-for-more" flavor—that's the famous "Breakfast of Champions"—Wheaties with plenty of milk or cream and some kind of fruit.

Wheaties are whole-wheat—flaked, malt-flavored, roasted and toasted. Wheaties supply wholesome nourishment, for whole wheat is rich in food-energy—largest need of the diet. Wheaties also furnish good protein. The whole wheat from which Wheaties are made contains more than twice as much good protein as corn or rice.

Wheaties, served with plenty of milk or cream, and some kind of fruit—an honest-to-goodness "Breakfast of Champions"—provide the essentials of a well balanced breakfast.

"They taste swell!"—that's what people say about Wheaties. It's their crisp crunchiness. Their toasted malt-flavored goodness. Their refreshing lightness. And the satisfying flavor of the whole wheat, itself. Perhaps some people eat Wheaties because "everybody else is doing it." At any rate, Wheaties are showing the fastest sales increase of any cereal in America.

Try Wheaties, yourself, for breakfast tomorrow! We know you'll like them.

**Wheaties, with plenty of milk or cream and some kind of fruit, are famous as a* "BREAKFAST OF CHAMPIONS."

Wheaties are accepted by the American Medical Association's Committee on Foods as pure, wholesome, and truthfully advertised. The Seal of Acceptance appears on every package of Wheaties.

GOLD MEDAL FOODS, INC.

of General Mills, Inc.

MINNEAPOLIS, MINNESOTA

Lee Roy Kirkpatrick of San Mateo Junior College winning the 220-yard dash in the San Mateo-University of California Freshmen dual meet of 1936.

made in these conferences and relays compare very favorably with performances made by most of the four year schools throughout the country.

In 1935, Sacramento Junior College won the championship of both the Northern California Junior College Conference and the Junior College Division of the West Coast Relays. Sacramento's colored sprinter, Claude McWilliams, won the 100-yard dash in the Relays with a time of 9.7 seconds and captured the broad jump with a leap of better than 24 feet. His best jump of the year was 24 feet 7⅜ inches, made in the Senior Pacific Association Meet at Stanford University. On the same team Jim Humphrey ran the high hurdles in 14.7 seconds, and Bill Foskett had a best mark of 48 feet ¼ inch in the 16-pound shot. The team was well balanced and strong in almost every event.

In Kansas, the 1935 state title was won by Independence Junior College whose outstanding athletes were Warren, Cox, Porter, Flynn, McCrea and Cannady. These boys won in their division of the Baker University Relays and the Kansas Relays with promising performances.

The Mississippi Junior College Conference championship was captured last season by Perkinston under the leadership of D. D. O'Neal, who is also president of the Mississippi Athletic Association. Outstanding athletes of this team were Colle Larsen, J. B. Waterer and Emil Panero.

California Champions

IN an article of this length it is impossible to compare the various marks made in the junior college conferences of different states, but a casual examination of the best performances of the past few years shows California junior colleges in the lead.

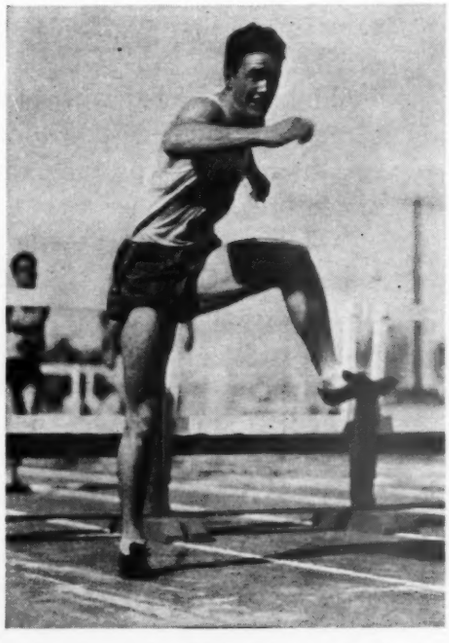
For example, the national Junior college record of 9.6 seconds for the 100-yard dash is held jointly by one Texas and two California sprinters. Back in 1929 Frank Wykoff, then a student at Glendale Junior College, first set the mark in the West Coast Relays. In 1934, both H. V. Reeves of Schreiner Institute, Texas, and Morris Pollock of Riverside Junior College of California tied the mark. Reeves was clocked in the record time twice that season and won his event in the Texas Junior College Conference Meet. He is probably the outstanding athlete developed in the junior colleges of Texas. Morris Pollock is one of the greatest all-around athletes of California. The husky little speedster not only tied the mark of 9.6 seconds for the century, but ran the 220-yard dash in 21.1 seconds and broad jumped 24 feet 7¾ inches to set up three national junior college records. He is now attending the University of California and is rated by Coach Brutus Hamilton as having an excellent chance to make America's sprint relay team.

In 1934, William Sefton and Earle Meadows of the Southern California Junior College both vaulted 13 feet 11½ inches in the West Coast Relays to set a national junior college mark. Now attending the University of Southern California these two vaulters have become nationally known and are considered to be outstanding Olympic Games material. The same season Reve Limeburner of Los Angeles Junior College vaulted 13 feet 9 inches. Last year the best junior collegian vaulter was Justin McCarthy of Compton Junior College, who cleared 13 feet 8⅜ inches. More than ten junior college vaulters have cleared 13 feet in the past two seasons alone. One of the best of these was Richard Harkins of Murray Agricultural School, Oklahoma. Harkins won in his division at the Kansas Relays in 1934 with a mark of 13 feet 2 inches. The same season he broad jumped 23 feet 6½ inches and high jumped better than 6 feet to stamp himself as the best junior college athlete of Oklahoma.

In the high jump, the tall, rubber-legged Cornelius Johnson of Compton Junior College has barely missed the world's record on a number of occasions. This colored jumper is considered a certainty to make the United States Olympic team. He has a best mark of slightly below 6 feet 9 inches. Other notable junior college high jumpers are Elmer Croson of Bakersfield, who leaped 6 feet 4⅝ inches, DeWitt Good of San Mateo, Max Forbes of Sacramento and Edward Jackson of Compton, all of whom have cleared 6 feet 4⅜ inches. During the last two years more than twenty junior college jumpers have gone higher than 6 feet 1 inch.

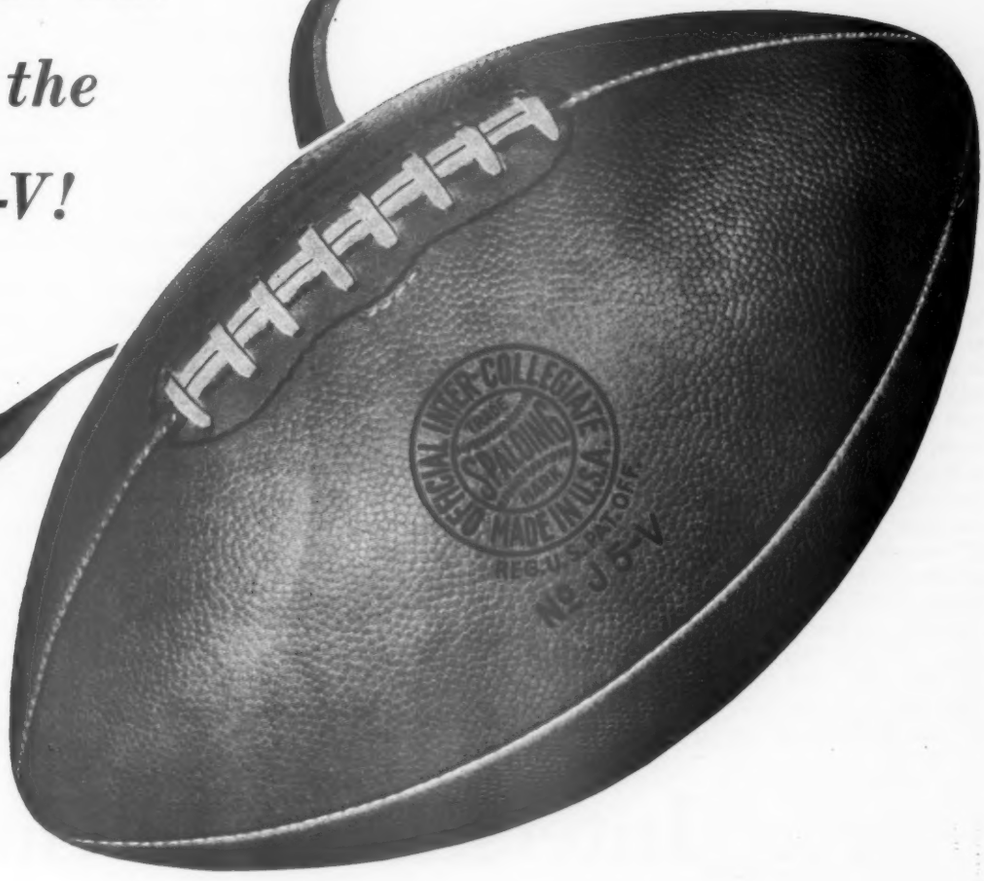
The California junior colleges have produced some very fine hurdlers in the past few years. Tom Moore of Sacramento set a time of 14.5 seconds in the high hurdles during 1934; William Brown of Fullerton and James Humphrey of Sacramento have both run the event in 14.7 seconds and Francis Sinnette of Pasadena has gone over the high barriers in 14.8 seconds. Some of these junior collegians are now in the major universities of the Pacific Coast and rank as outstanding hurdlers.

Greatest of the junior college hurdlers is Lee Roy Kirkpatrick of San Mateo



Lee Roy Kirkpatrick of San Mateo Junior College setting a new national junior college high hurdle mark of 14.4 seconds in a dual meet with the Fresno State College Freshmen, March 28, 1936.

No time out for the J5-V!



THE famous Spalding Official J5-V asks no favors—and expects none. It's built to take the most grueling punishment the game can give it—and come up asking for more! In short—the J5-V is the class of the Big Time.

It's easy to understand why:

The J5-V literally *bores* through the air. It gives maximum distance on spiral passes and punts. It flies far and straight when *place-kicked*.

These qualities are achieved by scientific experiments in the laboratory—as well as in actual play. The J5-V is not only *official* in size, weight and shape, but it *keeps* its size, weight and perfect shape throughout a long life of hard play.

H5-V—for Scholastic Play

The H5-V is patterned closely after all the specifications of its famous brother, J5-V, including size, weight and shape. And like the J5-V, it retains its shape under the most trying conditions. One of the most rugged balls money can buy for prep and high school play.

Ask your Spalding dealer or Spalding representative to show you both the J5-V and the H5-V—as well as the complete new Spalding line of Football Equipment for 1936.

There is also a Ghost Ball J5-V and H5-V—in white leather, for night play.

You'll agree, we think, that Spalding Equipment offers the sort of features that will help you and your boys make 1936 a season you'll long remember.

IT PAYS TO PLAY

A. G. Spalding & Bros.

1936 FOOTBALL EQUIPMENT

Junior College. This husky lad has tremendous possibilities and should stand an excellent chance to make America's Olympic Games team and possibly bring home an Olympic championship.

After a successful indoor season, the San Mateo boy opened his outdoor competition this year in the Long Beach Relays with a victory over Cope and Staley of the University of Southern California and Moore of the University of California in the good early season time of 14.6 seconds. Four weeks later, the brilliant hurdler set up two new national junior college marks with a time of 14.4 seconds in the high barriers and 23.4 seconds in the low barriers in a dual meet with the Fresno State College freshmen. By next summer this boy may have shattered the world's record.

Any list of outstanding junior college trackmen would have to include Leonard Spencer of Los Angeles, who ran the quarter mile in 49.4 seconds and the half-mile in 1 minute 56.4 seconds; Warren Dixon of San Mateo, who ran the half mile in 1 minute 58.3 seconds and the mile in 4 minutes 23.6 seconds; Ray Dean of the same team, who ran the 100-yard dash in 9.8 seconds and the 220-yard dash in 21.5 seconds and broad jumped 23 feet; Clark Crane of Compton, who ran the 100-yard dash in 9.7 seconds and the 220-yard dash in 21.4 seconds and broad jumped 23 feet 9 inches; Frank Parks and Jackson King, both of whom threw better than 149 feet in the discus; Gordon Dunn of Menlo, who put the 16-pound shot 48 feet 2¾ inches. These are but examples. The list could be stretched to much greater lengths, but it serves the purpose of illustrating the respectability of junior college performances.

The Present Season in California

IN California, the 1936 season appears as one that will be hotly contested. A number of colleges have strong teams, including such institutions as Sacramento, San Mateo and San Francisco in the north, and Pasadena, Glendale, Fullerton, Compton and others in the south.

Davis of the Compton Junior College appears an outstanding performer in the discus throw. Unknown before the start of the season, he unexpectedly took second place in the Long Beach Relays with a new national junior college mark of better than 157 feet. On the strength of this throw, he must be rated as another Olympic Games possibility from the junior colleges.

Pasadena Junior College has what is probably one of the best sprinting teams in the country with four colored runners who have all set marks of 9.9 seconds or better in the 100-yard dash and 21 and a fraction seconds in the 220-yard dash.

Other Sections of the Country

WHILE California leads the country in the development of junior college athletes, there are nevertheless many notable performers in other sections. Edward Daigle of New Mexico Military Institute in 1934 ran the 100-yard dash in 9.8 seconds and the 220-yard dash in 21.6 seconds. He also threw the discus better than 132 feet to indicate his all-around ability. Another able sprinter was James Collins at Fort Valley Normal, Georgia. He covered the 100-yard distance in 9.8 seconds.

In the javelin event, Tom Brinkman of Fort Scott Junior College, Kansas, threw 189 feet; Ray Zenger of Weber Junior College, Utah, hurled the spear 185 feet 3 inches; and Everett Zamzow of Yakima Valley Junior College, Washington, sent it out 181 feet 6 inches to indicate real ability. These marks surpass most of the California junior college performances, although the national record of 201 feet 11¼ inches is held by Lowell Todd of Modesto Junior College, California.

It is not the purpose of this article to enumerate in detail all of the outstanding junior college performances of the past few years, but rather to indicate the athletic progress made by the junior colleges. There can be little doubt as to the athletic future of these institutions when the tremendous advancement of the past five or six years is taken into account.

Many of the junior colleges have developed not only individual stars, but are now producing well-balanced teams with able reserves. In some instances these teams are meeting and defeating four year colleges, although as a general rule this is not characteristic of the two year institutions. The general rule that applies is this: the athletic teams of the junior college have reached a stage where they deserve recognition. It is the opinion of the author that in the next ten years or so the two year institutions will become much more numerous throughout the United States and outstanding athletic conferences will be built around them.

Interscholastic Golf

By V. V. Gilcrease
Alameda, California, High School

V. V. Gilcrease

GOLF, as an interscholastic sport here in the San Francisco Bay region, is becoming more popular each year. This is evidenced by new tournaments springing up each season designed primarily for high school competition.

FOR the high school coach planning to organize golf as an interscholastic sport, or for the one already giving instruction in that activity, this article should prove helpful. V. V. Gilcrease graduated from the University of California in 1923 and since that time has been instructing in high school or acting as professional instructor at private courses. During the summers since 1927, he has operated his own golf course at Lake Tahoe. For the past three years, he has been at Alameda, California, High School, where he coaches both golf and basketball. Alameda High School golf teams won the East Bay championship in 1934 and 1935.

Golf is an ideal sport for any type of boy, but especially is it suited to boys who are not physically adapted to body contact games such as football, where speed and weight are such important factors, and basketball, which demands height as well as speed and stamina. Consequently, this sport plays its part in bringing every physical director's dream closer to a reality; namely, having every boy out for a sport.

Providing Competition

TO put golf over successfully as a competitive high school sport, you must not only teach the fundamentals of the game but furnish the players with lots of competition, among themselves and with other schools. This year we have scheduled fifteen practice matches, mostly with high school teams, but including also the

ATHLETIC JOURNAL

OLYMPIC TOUR

33 days Using Tourist Class on Steamer **$495**

SEE SIX COUNTRIES AND SIX CAPITALS BESIDES THE OLYMPIC GAMES

Olympic Stadium—Berlin

Price of tour includes admission and reserved seats for the Track and Field Events at the Olympic Stadium while the party is in Berlin.

FRANCE
BELGIUM
HOLLAND
GERMANY
DENMARK
ENGLAND

including

A SCANDINAVIAN INTERLUDE
FEATURING COPENHAGEN
AND A DANISH VOYAGE

COACHING SCHOOL AND DAILY ROUND TABLE DISCUSSION ABOARD SHIP UNDER NOBLE KIZER, FOOTBALL COACH, PURDUE UNIVERSITY

A portion of each day of the eastbound voyage will be set aside for a meeting in the lounge at which time Coach Kizer will discuss topics of general athletic interest. Coaches will be invited to remain after each meeting for additional discussion on coaching methods and other subjects usually covered at coaching schools.

Tower Bridge—London

The Itinerary

July
23 Sail S. S. BERENGARIA.
29 Land CHERBOURG. By rail through delightful French countryside to PARIS.
30 PARIS. Notre Dame, the Louvre, the left bank, side walk
31 cafes, night life, boulevards and gardens; see the Paris of
August
1 history and of today with "Curley," our guide lecturer. Parties at night at the best and most interesting places.
2 BRUSSELS. One-half day drive in the city. Continue by rail to THE HAGUE. Spend night at Grand Hotel on the beach of the famous resort, SCHEVENINGEN.
3 THE HAGUE. One-half day sightseeing of the city and continue by rail to BERLIN.
4 BERLIN. Highlight of Europe this summer. A reserved
5 seat *every day* for the Olympic Games included. Plenty of
6 time to see the city, Unter den Linden, Branderburger Tor,
7 the University, Palaces and Museums, modern buildings
8 and shops, the beautiful Tiergarten (park). Night train to
9 COPENHAGEN, capital of Denmark.
10 COPENHAGEN. Half day sightseeing of the city including visit to the beautiful Park of Tivoli.
11 Rail to ESBERG. 2-day Voyage on Danish ship to Harwich,
12 train to LONDON.
13 LONDON. Dr. Minns, Fellow of the Royal Historical So-
14 ciety, will spend one day showing you the city and its sights. Westminster Abbey, Houses of Parliament, Tower of London, Bond Street, Piccadilly, Buckingham Palace, etc. Time for individual sightseeing, shopping, theatre and good times.
15 To LIVERPOOL and sail S. S. LACONIA.
24 Due to arrive New York.
(EXTRA WEEK IN LONDON—$45)

Other Tours Available. If above itinerary does not include all you want to see, write for information on other tours, telling us what you want to see.

Reservations now being taken. Early reservations given preference in cabin assignments.

THE ATHLETIC JOURNAL
Olympic Tour Department
6858 Glenwood Avenue, Chicago, Illinois

TREAT IT

Prevent its spread

COMPLETE control of Athlete's Foot is possible only when you clear up existing cases. Alta-Co helps you do that. For it is effective not only in *group prevention,* but is also a dependable treatment. Often relieves severe cases of long duration. Dilute in water, 1-to-10 —bathe infected areas. Use similar solution in foot tub. Non-irritating to skin. Harmless to towels. Odorless. Tested and approved by eminent authorities—their verbatim reports on request. Especially significant: report of group test showing that Alta-Co reduced number of cases in a high school.

Dolge Foot Tub, patented, made of non-blooming rubber in 1 piece. Non-slip tread inside. Non-skid: suction cups on bottom. Fits easily in any doorway.

Send for booklet J-5, Foot Tub service deal

ALTA-CO

The C B DOLGE Co.

WESTPORT, CONN.

freshman teams of Stanford University and the University of California. Each year we travel to Monterey, where we play Monterey High School on the famous Pebble Beach course.

For competition among my own players I use the "ladder." This is a long board containing small name card holders one below the other and numbered 1 through 50. At the start of the season we hold a ladder qualifying tournament of eighteen holes. When all of the scores are in I insert the name cards on the ladder according to the scores, with the best score at the top. From this time on through the season the players challenge each other in an attempt to reach the top of the ladder. The first six names on the list constitute the golf team and, needless to say, the players below position No. 6 work their heads off to get into the select group, while the first six work equally hard to stay there. A player can challenge only one position above him. If he wins, I exchange the cards of these two players. If the challenger loses, he must defend his position from the boy below before he can again play the one above. After experimenting considerably with ladder play, I have found the foregoing plan the fairest and most satisfactory one to use.

Match play is used in all our interschool competition. Each school is represented by three teams of two players each; so when play starts there are three foursomes. Each team can win a possible three points, making nine points in all. The team winning the most holes out of each nine gets a point, and the one winning the most holes out of the eighteen gets a point. If the number of holes is halved in either nine or the eighteen, the points are divided accordingly. In golf, as in other sports, there can be team play, and a coach may find, for instance, that positions one and three may team up better than positions one and two. By teaming up, I mean the boys play better together, because of one or several factors such as temperaments or personal likes and dislikes. It is considered poor ethics, however, to match up, say, positions one and four, as the first team is supposed to include the two best players on the squad, the second team the next best two, and so on.

Preliminary Instruction

BEFORE beginners ever play on the course they should be taught the fundamentals of the swing. Boys of high school age on the average have a very good sense of rhythm, balance and timing and are not at all difficult to teach, when compared with adults.

The mashie seems to be about the best club to start with. After instructing the novice in the proper grip, have him swing easily, with his wrists working into the swing. Do not allow him to hit any balls until he has the fundamentals of the swing all working smoothly together. One of the most difficult things for the beginner to do is to cock his wrists at the top of the swing without bending his left elbow. The left arm must be kept straight and firm through the swing until after the ball is hit. If not, the club head does not follow the path of a perfect circle, and a topped ball is the usual result. Most boys are right handed; so it is only natural that in the beginning they force their right arm and shoulder into the swing. This procedure is disastrous, as it forces the club head into the turf and also throws the club head out of the groove, making it travel from the outside in. The downward swing must be started by pulling with the left shoulder and arm, keeping the right elbow close to the body. The wrists are kept cocked until about the last third of the swing between the top and contact with the ball, when they are released, giving the punch to the swing. If a student persists in getting too much of the right side of his body into the swing, have him swing for a while with only the left arm, and this will give the correct "feel."

Continuous swinging at daisies and imaginary golf balls becomes monotonous; so as soon as the student has the fundamentals fairly well learned give him some balls to hit. This is a lot more fun for the potential golfer, and his faults will soon be evident to himself, as many times practice swings seem perfect when actually, if the golfer had hit balls, the results would not have been so satisfactory.

About the first thing the student wants to do when he sees the unsuspecting ball sitting on the tee is to murder it without any ado. The quickest way to learn how to hit a golf ball correctly is to swing easily. When the student gets his swing grooved, when he gets good balance and timing, then he will get not only distance but accuracy as well.

Correcting Faults

SLICING is a very common ailment of golfers, and is the result of one or a combination of several faults. The writer will discuss only a few of the most common causes. Hitting from the outside in across the line of flight imparts a right hand spin to the ball, causing it to curve to the right. This hitting from the outside in may be corrected by having the student throw his left arm out along the line of flight as far as possible before allowing it to come around the body for the completion of the swing. He should swing as though he were going to throw his club to the spot where he wants the ball to go. In other words, have him swing *away* from his body instead of *around* as with a baseball bat. Keeping the right elbow next to the body is a big factor in correcting this fault. Have the student try

swinging with the right elbow next to the ribs and he will find it nearly impossible to keep from following the line of flight the required distance.

Another common cause of slicing is a lack of timing. At the moment of contact, the hands should be directly opposite the ball. When the hands are past this point in the swing before contact, the club face meets the ball in an open position, and a slice results. Pressing, trying to hit too hard, forces the hands out of position ahead of the club, causing the above results.

The shifting of the body weight should also be considered. As the club is taken back, the weight is shifted largely over to the right foot. During the swing downward the weight slides forward to the left foot, where, at the moment of contact with the ball, practically all the weight should be. As the weight comes forward with the swing, the left knee should stiffen, thus preventing a dip of the body, such as is seen in a player who does not swing over on to a firm left leg. Keeping the weight on the right foot too long prevents hitting out along the line of flight, and the club is forced around the body too soon, hitting across the ball instead of through it.

Hooked shots are so rare among beginners that they warrant little space in this article. Gripping with the right hand too far under does its share in causing this malady. During the swing, if the right hand is under too far, it is rolled up or over to its correct position and, as this is done, the club face is closed, causing the hook.

From the standpoint of timing, just the opposite of that causing the slice will cause the hook. In this case the hands are too slow in coming through the swing, allowing the club head to make contact before the hands reach the point opposite the ball. Here the club meets the ball with a closed face, causing the hook.

So much for some of the most common faults in the golf swing and suggestions for correction.

Miscellaneous Suggestions

ALONG with teaching the swing, the coach must instruct young golfers in proper etiquette and the rules of the game. Certain golf ball manufacturers put out, gratis, small booklets containing the rules of golf, which are very handy. It is surprising that such a small percentage of golf fans have ever read the rules of the game they are playing.

Student managers can be of great assistance in golf as in other sports. The senior manager's job is to assist in arranging the schedule, type letters and line up transportation for trips. The junior, sophomore and freshman managers are used for "shagging" practice balls and caddying for the team members on days of interschool competition. Properly sten-

RIDDELL

INTERCHANGEABLE CLEAT FOOTBALL SHOES

Fourteen years ago, the first successful interchangeable cleat football shoes were made by Riddell. They were given the enthusiastic approval of leading college and high school coaches. Now, interchangeable cleats are no longer a novelty. But successful coaches, recognizing Riddell's consistent leadership, know that they can still find in Riddell shoes the latest sound developments in fine athletic shoe construction.

Regular Shoes

Style 35—A good, durable football shoe made out of Athletic Tan leather, which is very tough and does not harden or crack. Ten eyelets high. Sole is made out of a good grade of oak leather. Equipped with No. 1 cleats.

Style X—A light, yet sturdy shoe; made throughout of a good grade of materials. Will give you fine satisfaction. By all odds the best shoe made within this price range. Equipped with No. 1 cleats.

Style O—An Ath-Tan Kangaroo shoe of excellent quality. Is light, durable and a shoe we can recommend to you without reservation. An exceptional value. Equipped with No. 1 cleats.

Style P—This Ath-Tan Kangaroo shoe is one of the biggest sellers in our line though not expensive. Many of the more prominent colleges are using this shoe for their varsity teams and squads. It has everything that goes to make up a perfect football shoe. Equipped with No. 1 cleats.

Style PX—Same as Style P only with soft toe. Equipped with No. 1 cleats.

Game Shoes

Style 92—A game shoe of the finest quality; light weight, yet will stand hard usage. Particularly adaptable for Ends and Backs—the "last word" in a sprint shoe. Ath-Tan Kangaroo. Equipped with No. 6 cleats.

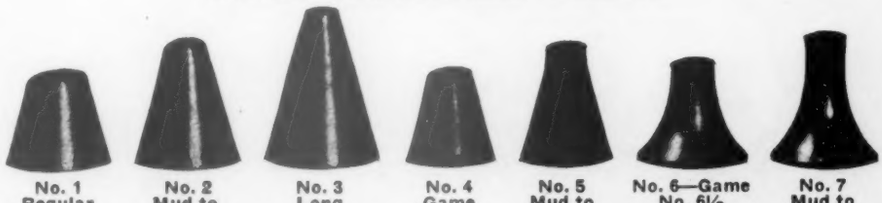
Style 77—A split shank shoe, light, still durable; made from our new Athletic Tan leather. An outstanding shoe at the price. Equipped with No. 4 cleats.

Style R—A flexible shank, Ath-Tan Kangaroo shoe—used by such teams as Pittsburgh, Alabama, Colgate, etc. A "corking" fine shoe of the best University grade. Equipped with No. 4 cleats.

Style H—An exceptionally fine yellow-back Kangaroo shoe. Goodyear welt construction. Very sturdy and durable. The upper is ten eyelets high. Split shank. Equipped with No. 4 cleats.

Style 89—A very light Goodyear welt game shoe made of yellow back Kangaroo leather. Split shank. Ten eyelets high. Used regularly by many college teams. Equipped with No. 6 cleats.

INTERCHANGEABLE CLEATS



No. 1 Regular Practice | No. 2 Mud to No. 1 | No. 3 Long Mud | No. 4 Game | No. 5 Mud to No. 4 | No. 6—Game No. 6½ Bakelite | No. 7 Mud to No. 6½

JOHN T. RIDDELL, Inc.

1259 North Wood Street, Chicago, Illinois

ciled white sweat shirts lend a little dignity to the job.

The most important feature of golf as a high school sport is that it gives the student a sport or hobby, if you wish to call it that, that he can follow when he finishes school. After all, we are preparing these youngsters for the future, and what single thing of more important consequence can we give them than a game from which they can reap pleasure, health and social contacts for years to come?

Prospects of the United States in the XIth Olympiad

By Clarence A. Bush

WHAT chance have athletes representing the United States of emerging victorious from the XIth Olympiad in Berlin? What competition will European, South American and Asiatic countries offer? In this article, Clarence A. Bush, veteran sports reporter, analyzes the situation and names the principal prospective competitors in the various sports.

SWIFTER! Higher! Braver! This slogan of the Olympic Games is inspiring the athletes of the world for the XIth Olympiad as never before. Record breaking entries from fifty nations have been received. More than 5,000 athletes are scheduled for the contests. The general caliber of performance is greatly improved, as shown by the records established in various countries during the past year.

This rapidly advancing interest in the Olympics in many lands, and especially in Japan, has brought on a crisis for the United States. Since the Games were revived forty years ago, the United States has never failed to carry off a majority of the laurels. At each Olympiad, however, our margin has been reduced.

At Berlin, contending with more than twice as many athletes as at Los Angeles, we face the greatest task in Olympic history. We had a sample of what may be in store for us in 1932 when Japan came out of nowhere in Olympic annals to make almost a clean sweep in men's swimming. Our strength in women's swimming and men's track and field athletics saved our majority.

Will other nations surprise us at Berlin? It is more than likely, especially in view of the results of the Winter Olympic Games, when the United States was snowed under. Plainly, this country must face the facts in order to be properly prepared.

Boxing

WHERE lies our strength? In boxing? The final tryouts at the Chicago Stadium, May 20, are likely to produce the greatest Olympic boxing team the United States ever saw. The Golden Gloves tournaments, the National Amateur Athletic Union eliminations in which boxers from the Army, Navy and Marine Corps and the A. A. U. districts all over the country participated, and the National Collegiate Athletic Association meet, which qualified some stout glove wielders, will no doubt bring to the finals the best amateurs in the United States. We like to believe these boys will win the boxing championship for us at Berlin. But will they? This country won only two out of eight titles in boxing at Los Angeles. Our winners were Edward Flynn in the welterweight and Carmen Barth in the middleweight. What reason have we to suppose our boxers will do better at Berlin?

Our coaches, Johnny Behr of the Illinois Athletic Club and Fred Caserio, and the team manager, Roy Davis, all of Chicago, are hopeful. This trio will give our team capable direction, but even after the team is known these men cannot safely predict the prospects of the United States against Hungary, Canada, the Argentine, South Africa, Sweden, Italy and Germany, which were strong in 1932. Argentine and South African boxers took two titles each at Los Angeles.

Wrestling

DOES our strength lie in wrestling? With wrestlers drawn from all parts of the country, in sectional and national semifinal tryouts similar to the boxing set-up, the Olympic finals at Lehigh University, April 16, 17 and 18, resulted in a fine mat team, dominated by the Oklahoma colleges, which won six out of seven championships. These colleges have been setting the amateur wrestling pace for the United States for several years. They led us to Los Angeles in 1932. And how did we come out? We won two out of six championships at free style wrestling. Our winners were R. E. Pearce in the bantamweight and Jack F. VanBebber in the welterweight class.

There is no reason to suppose Finland, which won two titles, France and Sweden, which won one each, and Hungary, a good second in nearly every weight, will be less strong.

Inasmuch as we do not even enter the Greco-Roman wrestling, we cannot hope for much of a showing in the mat sports.

Olympic wrestling, by the way, is conducted on a plan seen in the United States only in this Olympic year. Rules of the International Amateur Wrestling Federation are followed.

Our prospects in men's and women's fencing, men's and women's gymnastics, field hockey, field handball, soccer football, cycling and canoeing are likewise nebulous. In the modern pentathlon and equestrian sports we have never made conspicuous showings, though we have done better in rowing and yachting. In

Architect's Conception of the Olympic Stadium, Berlin.

polo it is not definite whether we will compete, but we have a good chance in this sport if we enter.

Basketball

OUR basketball team should, of course, return with an Olympic title. The United States, being the home of the game, with wider participation and more experienced coaching, should come out on top of the twenty-four or more nations entered in the Olympic tourney. The team selected in the final tryouts in New York, April 3, 4 and 5, is very strong in regulars and reserves.

It is composed of seven members of the Universal Pictures team, which defeated the McPherson Oilers, 44 to 43, in the final game at Madison Square Garden. These teams were second and first, respectively, in the National A.A.U. tournament in Denver. In the final tryouts they eliminated five college teams and the Y.M.C.A. entry.

Possibly the best college teams were not qualified for this final. Many leading quintets failed to go through with their plans to compete in the collegiate eliminations, thus allowing possible Olympic honors to go by default.

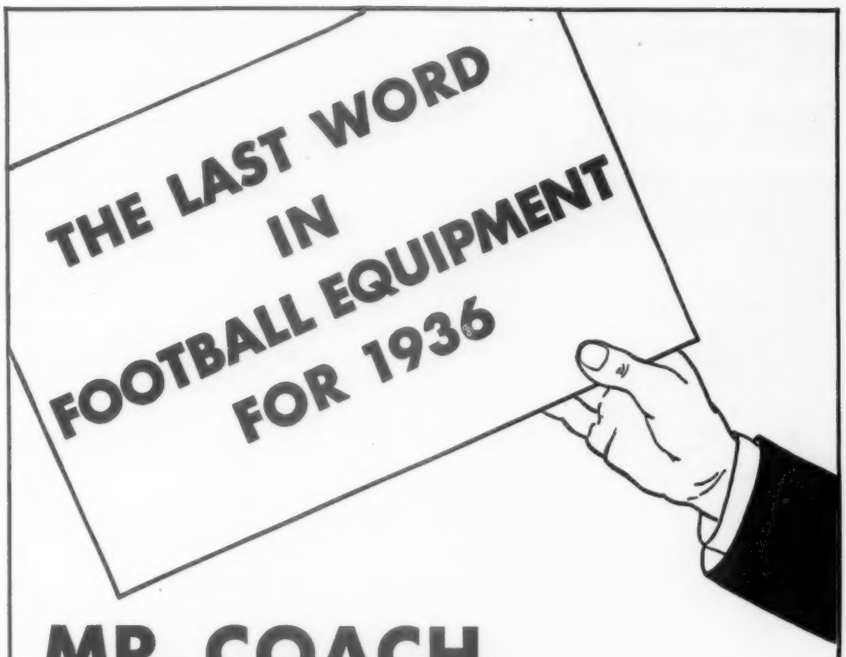
Selected from the Universal team were Frank Lubin, Cary Shy, Duane Swanson, Art Mollner, Don Biper, Sam Balter and Carl Knowles. The Oilers placed Francis Johnson, Joe Fortenberry, Tex Gibbons, Jack Ragland and Bill Wheatly. The University of Washington placed Ralph Bishop, star center.

Alternates selected from the other teams were Ken Ryan and Ed Wade of Utah State Agricultural College; Don Shields of Temple University; Ed Campion of De Paul University; Fred Crum and Tommy Evans of Wilmerding, Pennsylvania, Y.M.C.A.; Charles Wagner, Robert Egge and Ed Loverich of the University of Washington, and Ike Poole and Lee Howell of the University of Arkansas. The only chance the alternates have, however, is that some members of the first team may be unable to go. The American Olympic Committee will not take alternates in any sport.

James Needles, coach of the Universals, was named head coach, and Gene Johnson of the Oilers, assistant. Dr. J. A. Reilly of the Kansas Athletic Club was elected team manager.

This leaves men's and women's track and field sports, and men's and women's swimming, including the diving and water polo events. We count on our representatives in these sports to "bring home the bacon" as in the past.

We must wait until the final tryouts in these events in July before we can figure our prospects with any degree of confidence. Even then, however, we will not have a comparative picture, for some of the other nations show a disposition to conceal their programs. The employ-



MR. COACH

IT'S YOURS FOR ASKING

● Your boys—those lads who will carry the name of your school out on the gridiron this fall are entitled to the finest equipment that your budget will permit them to have. They want and deserve equipment that will provide genuine protection, yet it must feel good on their bodies without burdening them. It must fit without binding or dragging and permit them to play with perfect ease of action.

● In addition to these features you are of course concerned with the durability of the equipment—its ability to take punishment and finally its economy.

● The new GW equipment for 1936 is "tops" in all of these qualities. It's a line of equipment that is rapidly growing in favor with a steadily increasing number of coaches because of its merit.

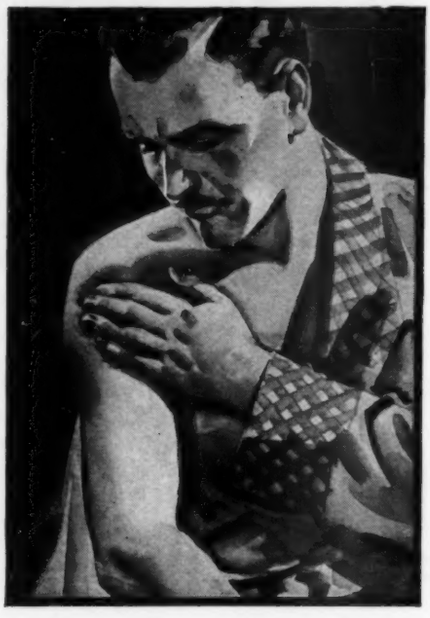
FOR COACHES' REFERENCE ... the complete story of this great GW football line is contained in condensed form in a handy buying guide prepared especially for coaches. It will be a big aid in helping you select your equipment. If your dealer has not already supplied you with your copy, write direct to Great Western today.

GREAT WESTERN ATHLETIC GOODS CO.

3601 W. ARTHINGTON STREET, CHICAGO

ORIGINATORS OF THE GOLDEN FLUSH LINE

HE WOKE UP IN DREADFUL PAIN



But Absorbine Jr. Brought Relief

*NOT until T. J., lawyer of Shreveport, La., woke up with shooting pains did he realize he had sprained his shoulder when changing a tire the afternoon before.

Fortunately his good wife knew what to do. Immediately she jumped out of bed, got the bottle of Absorbine Jr. off the bathroom shelf, and began rubbing that wonderful liniment into the sore spot.

Relief came quickly, says Mr. J., and he calmly went back to sleep as though nothing had happened.

Thousands of letters in our files tell similar experiences of grateful users. Nothing like good old Absorbine Jr. for sundry aches and sprains. Also, it kills the fungi that cause Athlete's Foot.

Economical to use—little goes far. At all drug stores, $1.25 a bottle. To obtain free sample, write today to W. F. Young, Inc., Springfield, Mass.

*Based on actual letter from our files

ABSORBINE JR.

Relieves sore muscles, bruises, muscular aches, sprains, Athlete's Foot

ment of American coaches by a number of European countries since the last Olympiad is another factor in the situation. American coaching is bound to show results.

Men's Track and Field

THERE are twenty-three events on the men's track and field program. Because of our strength in the dashes and middle distance runs, the United States has won the 400-meter relay consistently since 1920, and the 1,600-meter relay since 1924. We may with some confidence count on winning these events again.

Our prospects in the Marathon are improved, if the performances of John A. Kelley of Arlington, Massachusetts, Leslie Pawson of Pawtucket, Rhode Island, and Pat Dengis of Baltimore, Maryland, or Mel Porter of New York are maintained. The Marathon committee feels that these boys really have a chance to bring America its first Marathon victory since 1908, when John J. Hayes won after the Italian, Dorando, was disqualified for being carried over the finish line. Juan Carlos Zabala, the title defender from the Argentine, must be beaten.

America's weakness in the long distance runs, at 5,000 and 10,000 meters, appears to be uncorrected. The hope is to uncover some dark horses during the tryouts.

With Glenn Cunningham, Gene Venzke and Joe Mangan or William Bonthron in the 1,500 meter run, we have a chance to win for the first time since 1908, though we will have to beat Jack Lovelock of Australia, and the 1932 champion, Luigi Beccali of Italy.

In the two dashes, Ralph Metcalfe, Eulace Peacock, Jesse Owens and George Anderson should bring the United States a majority of the points, though Yoshioka of Japan is a threat in the century. Eddie Tolan, double winner in the Olympiad at Los Angeles, has retired.

At the 400-meter dash, Eddie O'Brien, James LuValle and Ray Ellinwood are good prospects, one of whom should finish ahead of Shore of South Africa and Roberts of England, their leading challengers. William Carr, winner at Los Angeles, retired from competition as a result of injuries in an automobile accident.

At 800 meters, our outstanding prospects are Ben Eastman, Charles Hornbostel and Elroy Robinson, and their leading challenger at this time appears to be Stothard of England. In the 3,000-meter steeplechase, Volnari Iso-Hollo of Holland is favored to repeat, and our best hope is again Joe McCluskey.

The United States has good hopes in the 110-meter and 400-meter high hurdle events, with Al Moreau against Finlay of England in the short race, and Glenn Hardin and Tom Moore in the longer test.

With Andersson of Sweden and Schroeder of Germany in the discus, Matti Jarvinen of Finland in the javelin, Japan's specializing on the hop, step and jump, and Hans Sievert of Germany in the decathlon, the United States cannot count on victories in these events. The foreign contenders are champions and world record holders, and the best we can safely figure against them is minor places.

The same is true in the hammer throw, with Dr. Patrick O'Callaghan of Ireland favored to repeat his previous victories.

In the shot put, Jack Torrance should win for the United States. Despite strenuous Japanese competition, Jesse Owens and Eulace Peacock may dominate the running broad jump. Our prospects in the running high jump also are good, with Cornelius Johnson, Ed Burke and Walter Marty.

Japan may surprise us again in the pole vault, but Earle Meadows and William Sefton look like capable defenders of the title won by William Miller in 1932. Keith Brown has announced he will not compete.

Women's Track and Field

IN women's track and field it has been freely predicted that Germany will set the pace in numbers and quality. There are six events on the women's program.

In the 100-meter dash we have the leading contender in Helen Stephens of Fulton, Missouri, world's record breaker. Her chief rival, Stella Walsh of Cleveland, Ohio, Olympic champion and record holder, is competing for Poland.

Germany has two first rank sprinters in Kaethe Krauss and Marie Dollinger, matched by England with N. Halstead and E. M. Hiscock, by Canada with Meagher and Hilda Cameron and by South Africa with Barbara Burke and Marjorie Clarke. America's Betty Robinson is an unknown quantity at this time, while Annette Rogers is a hope.

Without Mildred Didrickson we may not win the 80-meter hurdles, unless Evelyne Hall and Tidye Pickett develop unexpected speed. At the head of the list in this event now appear A. Doorgeest of Holland and Ruth Engelhard of Berlin. The Misses Burke and Clarke also are fast over the hurdles. The new German champion, Anni Steuer, and the Italians, Trebisonda Valla and Claudia Testoni, must be reckoned in the point possibilities.

The United States counts on the running high jump. Though nobody has threatened the mark of Jean Shiley who won for the United States at Los Angeles, Elfriede Kaun of Germany has come close, and Milnes of England ranks well. Canada may be expected to show some challengers in this event.

In the discus throw, Gisela Mauermeyer of Germany is considered in a class by herself. She is an all-around

star, good at running, jumping and weight throwing.

Finland, which has been encouraging women's sports for only the last three years, may reveal some surprises in any of the six events, and most certainly in the javelin throw, in which the men athletes are almost invincible. The Finns will have to beat Ellen Braumueller, Louise Krueger, Lisa Gelius and Gerda Goldman of Germany, who appear to be outstanding in this event.

The St. Louis quintet, May Brady, Harriet Bland, Jessie Crain and Edna Gustavson give us some hope in the 400-meter relay.

Swimming

WE have a fight on our hands in both men's and women's swimming. Reading the headlines of world's records frequently broken by American swimmers, we are apt to build up delusions of grandeur in these events. We forget that these records are mostly for non-Olympic distances, and measured in yards. Other countries swim the Olympic distances, measured in meters. These records are harder to break because they have been worked on more and are thus closer to the irreducible minimum of human possibility. Furthermore, records made abroad are not efficiently or conspicuously reported.

For example, we think Jack Medica is just about unbeatable in the distance swims, 400 and 1,500 meters. We forget he was beaten in Japan only last summer by Hiroshi Negami at 400 meters, and that three Japanese finished ahead of our stars at 1,500 meters. The other distance leaders for Japan are Shozo Makino and Gen Ishiharada.

In these longer free style events we have in addition to Medica the Flanigan brothers, Jack and Ralph, and James Gilhula and John Macionis; but Japan, as in 1932, is likely to show up at Berlin with some youngsters we never heard of, in addition to their stars of last summer.

At 100 meters backstroke, Adolph Kiefer with his long string of world's records looks unbeatable, and he has support in Taylor Drysdale, Dan Zehr and Albert Vande Weghe. However, the 1932 champion from Japan, Shoji Kiyokawa, is still going strong.

We have two record breakers for the 200-meter breast stroke, Jack Kasley and John Higgins, but the Olympic record holder, Reizo Koike, rated by the Japanese as the greatest breast stroker in the world, is still in the best of form.

In the 100-yard free style event, we have the world's record holder in Peter Fick, and able assistance with Walter Spence and Arthur Highland. Japan is nominating Masanori Yusa, and it no doubt has a number of aspirants at present unknown. Japan also has a good chance to defend the title in the 800-

TORO

ALL OVER THE WORLD

TORO POWER ROLLER

A COMPACT riding type mower roller weighing 1050 pounds. Built specially for tennis courts, athletic fields and parks. It is rapidly replacing old-fashioned, tedious, expensive hand rolling. Rolling width 30 inches. Scrapers on front and rear rollers.

Easy to Operate

Equipped with pivoting seat, improved chain drive steering apparatus, forward and reverse transmission . . . turning unnecessary. Toro Hi-Duty 4-cycle motor, developing 3 horsepower at 2000 R.P.M. Speed up to 3½ miles per hour. Will climb grades up to 10 percent

TORO solves reduced maintenance budget problems. Write for Toro Power Mower Catalog.

TORO MANUFACTURING CORPORATION OF MINNESOTA

3042 Snelling Ave., Minneapolis, Minnesota, U. S. A.

PROGRAMME OF THE XI[th] OLYMPIAD · BERLIN 1936

OPENING CEREMONY:
Saturday, August 1st, 1936, Olympic Stadium ..... 16[00]
CLOSING CEREMONY:
Sunday, August 16th, 1936, Olympic Stadium ..... 15[00]
FESTIVAL PLAY:
Saturday, August 1st, 1936, Olympic Stadium ..... 21[00]

DEMONSTRATIONS AT THE OLYMPIC STADIUM:
Gliding: Tuesday, August 4th, 1936, morning (Aerodrome)
Baseball: Wednesday, August 12th, 1936 ..... 19[00] (and military concert)
Gymnastics: (Preliminary Program)
1. Sweden, Saturday, August 8th, 1936 ..... 18[00]-19[00]
2. Germany, Sunday, August 9th, 1936 ..... 16[00]-17[00]

Date: ... August:	2.			3.			4.			5.			6.			7.			8.			9.			10.			11.			12.			13.			14.			15.			16.			Stadiums
Day V = morning N = afternoon ..... A = evening	Sun.			Mon.			Tues.			Wed.			Thu.			Fri.			Sat.			Sun.			Mon.			Tues.			Wed.			Thu.			Fri.			Sat.			Sun.			
Athletics	V	N		V	N		V	N		V	N		V	N		V	N		V	N			N																					Olympic Stadium (Reich Sport Field)
Wrestling	V		A	V		A	V		A				V		A	V		A	V		A	V		A																				Deutschland Hall
Modern Pentathlon	V			V	N		V			V			V																															Döberitz, Wannsee, Swimming Stadium (Reich Sport Field)
Fencing		N	A		N	A	V	N	A	V	N	A	V	N		V	N		V	N	A	V		A	V	N	A	V	N		V	N	A	V	N		V	N					Reich Sport Field Gymnasia
Hockey		N			N			N			N			N			N			N			N			N			N			N			N								Hockey Stadium (Reich Sport Field)
Weight-lifting			A			A						A																															Deutschland Hall
Football					N			N			N			N			N			N						N			N						N						N				Sporting Grounds of Berlin and Olympic Stadium (Reich Sport Field)
Polo					N			N			N			N			N			N																									Polo Field Assembly Grounds (Reich Sport Field)
Yachting							V	N		V	N		V	N		V	N		V	N		V	N		V	N		V	N		V	N		V	N		V	N						Kiel Bay
Shooting													V	N		V	N		V	N																									Shooting Ranges at Wannsee
Handball														N			N			N						N					N						N									Reich Sport Field and Olympic Stadium
Cycling														N			N			N					V																					Cycling Stadium
Canoeing																	N		V	N																											Rowing Course at Grünau
Swimming																			V	N		V	N		V	N		V	N		V	N		V	N		V	N		V	N			Swimming Stadium (Reich Sport Field)
Basketball																				N			N			N			N			N			N			N							Reich Sport Field
Boxing																									V	N	A	V	N	A	V	N	A	V	N	A	V	N	A	V		A				Deutschland Hall
Gymnastics																									V			V	N		V	N														„Dietrich Eckart" open Air Theatre (Reich Sport Field)
Rowing																												V	N		V	N		V	N		V	N							Rowing Course at Grünau
Equestrian Sports																															V	N		V	N		V	N		V			V	N		Equestrian Stadium and Olympic Stadium (Reich Sport Field)

Exhibition of Arts: July 15th to August 16th, 1936, at Hall VI of the Berlin Fair Grounds at Kaiserdamm

EDITION: MAY 1935

The Olympic Stadium Pass includes all the events and demonstrations bordered hereon

SUBJECT TO CHANGES

meter relay. The United States leads in both diving events, for men and women.

Our water polo players, who have not been able to make a good showing in recent Olympics, may again bow to European rivals and perhaps even to a Brazilian team. Hungary may be depended on to defend the title capably.

We believe we have a fine crop of women swimmers, but Holland and Japan combined may allow us fewer firsts than we anticipate.

Olive McKean, Mary Lou Petty and Claudia Eckert look good in the 100-meter free-style, but the world's record is held by the Dutch girl, Willi den Ouden. Not only on account of her world record, but because of her reputation for steadiness, Miss den Ouden is looked upon as the favorite. And who will take second rank? Probably not an American, but another Hollander, the youthful Rita Mastenbroek. There is still another Dutch girl who is better than leading United States rivals; namely, Miss A. Timmermann. Other prospects are the little noted Brazilian, Campbell; the Spaniard, Gonzales; the French girl, Blondeau; and the Hungarian, Lenkei. Finally, Germany has winning material in Gisela Arendt, who, although she has not made such good time as the Hollanders, might easily reach the final.

It is possible that Miss den Ouden in her present good form will decide to enter both free style events. In this case, she might take a second gold medal, as she holds the world record for the 400-meter swim. But the difference between the Hollander and Leonore Knight Wingard, the American, is slight.

The United States will enter two new swimmers, as yet unknown in Europe—Mary Lou Petty of Seattle and June Burr of Florida—and it would not be wise to underestimate their performances. Holland has two good swimmers in Oversloot and Ladde, and Japan's best performer is Miss Kojima. Then there is the South African, Maakal. Behind these two come the Danish girl, Lilli Andersen, and the Australian, Doris Buckley.

Who will win in the 200-meter breast stroke event? Katherine Rawls, Crystal Diete and Dorothy Schiller look good, but, just as in Los Angeles, it is possible that in Berlin the Americans will come away empty handed in this event, for it is one in which this country's swimmers have always been comparatively weak. In contrast, the decided strength of the Japanese invites attention, and unless all signs fail, the little Japanese girl, H. Mayehata, will take the prize in this event. She now holds the world's record. For this distance the two Germans, Martha Genenger and Clare Dreyer, are both very good, as is also the Hollander, Jenny Kastein. This contest, in any case, promises to be very interesting, as it is the only one in which the title holder of Los Angeles will enter. The Australian, C. Dennis, is every bit as good as she was four years ago, and is therefore to be reckoned with.

The finish of the 100-meter back stroke race should be very close. The Americans, Eleanor Holm Jarrett and Margie Smith, and the Hollander, Rita Mastenbroek, are almost equal. Germany has good talent in Gisela Arendt and Christel Rupke, but the French girl, Blondeau, and the Hungarian, Lenkei, are also both good. Sweden is relying on Lundberg, and Jugoslavia on Wimmer. The United States is reckoning with Miss Mayehata of Japan, yet hopes to win something with a new young star, Elizabeth Kompa. The 400-meter relay race is apt to be a contest between the United States and Holland, which will be as it was in Los Angeles in 1932. But will Japan break into this combination? The younger talent in Japan is unknown.

In five weight-lifting classes we failed to win a single first at Los Angeles. While our boys have been improving, we have a long way to go from third in the featherweight, fifth in the lightweight, fifth in the middleweight, third in the light-heavyweight and fifth in the heavyweight.

Mouse-Trapping Tackles and Guards

By Fred H. Swan
Temple University

THE first conception of mouse-trapping, I believe, came from the old T formation, which is probably the original formation in football.

In the early days of football, teams used the cross block, which depended on one man setting up an opposing player on the line of scrimmage, and another man coming across and side-swiping him. The mouse-trap depends on something different. It consists of allowing a hard charging offensive player to cross the line of scrimmage, and slapping him from the side and making him "fly through the air with the greatest of ease."

One of the hardest positions to play in the line, and the place where coaches try to put their best men, is the tackle position. I think we are all agreed that we try to get the biggest, fastest, toughest and most aggressive man at one of the tackle positions. The only kinds I seem to be able to get are tackles that are triple threat—slip, trip and miss. Nevertheless, the tackle has a very vital area to cover.

I figure that all the basic plays and fundamental plays are run at a point either just outside or just inside of the tackle. It is true that, at certain places on the field, the ends have a great deal of pressure put on them. It is also true, in certain situations, that the guards have a great deal of pressure put on them. But the tackles, if they are good, active men, will try to help the guards and the ends. For that reason, I think it is safe to say that about 80 per cent of mouse-trapping plays are aimed at the tackle position. One reason mouse-trap plays are good is because it is only human nature to try to "get something for nothing."

The essentials of a good mouse-trap play are, first, that it must start as one of your best basic plays; and secondly, that the opposing player next to the man who is going to be mouse-trapped has plenty of power put on him with a double team drive to take him out. Of course, you should have some mouse-trap plays in your offense to protect your best basic plays.

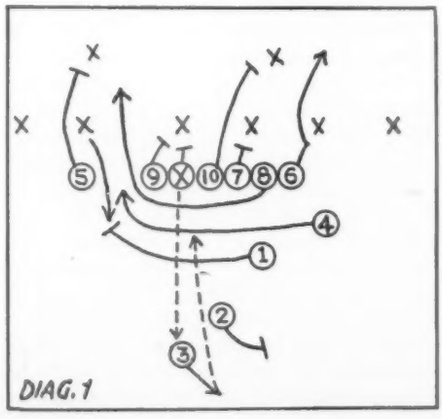
Fred H. Swan

The best way for me to demonstrate what I consider good mouse-trap plays is to present diagrams of them. I will diagram mouse-trap plays on tackles and on guards in single wing, double wing and short punt formations, and in the Notre Dame formation. These plays are not necessarily plays that are used by our opponents. When I sit up in the stands on a Saturday afternoon scouting a team, watching a defensive line, I may see a very good "sucker" play and put it back in my mind as a good play to try. I will not mention what schools use these plays.

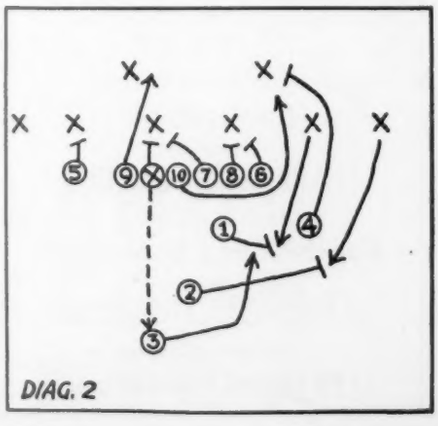
The first play is shown in Diagram 1. This is from a single wing formation and is a fake pass which comes back to the weak side. Although many defensive teams float the ends and tackles at times, most teams find that one of the best defenses for forward passes is to rush the opposing line hard and "shellac" the passer, thus making him a thrower instead of a passer.

Diagram 1 shows the defensive linemen indicated as I saw them play. This play starts out as a forward pass. Back 3 takes the ball and steps back, and 2 goes over to his right as if to block for a pass. The left end, 5, releases as if for a pass. The right end, 6 also releases as if for a pass. The offensive team wants to get strength on the left side of the line, giving it power plus deception. So 9 and the center team on the opposing guard and let the defensive right tackle come through. Lineman 7 blocks the defensive left guard, 1 mouse-traps the defensive right tackle, 3 steps back as if to throw a pass, and 4 goes around and inside the defensive right tackle. As 4 swings around, 3 throws him a short pass back of the line, and the play is led by 8, who is supposed to take the line backer on the right side of the defensive line.

The next play, shown in Diagram 2, is one that was used successfully against the Navy team in one of the games last fall. This play starts off as an off-tackle play to the strong side, which is a basic play from the single wing formation. It is a very strong play, because offensive players get a good crack at the strong-side defensive guard. On this play, 8 sets up the defensive left guard and 6 goes across on him. Back 4 goes down either for the defensive left halfback or the man backing up the line, depending on the man he comes to first. On this play, the ball comes to the back man, 3. The quarterback, 1, goes out to his right and mouse-traps the



DIAG. 1



DIAG. 2

AT Stanford University, Fred H. Swan played guard for three years, being captain in his senior year, 1926. Following his graduation from Stanford, he served for two years at the Burlingame, California, High School as Coach of Football and Director of Athletics. Under Swan, the Burlingame football squads lost but three games in two years. In 1929, Swan was called to Colgate University to coach the line, where he gained a reputation for being one of the best line coaches in the East. Following two years as line coach at the University of Wisconsin, Swan was selected by Temple University in 1933 to coach its line. He is especially noted for the fine offensive play of the lines under his supervision.

HIBSE

TENNIS STRINGS

—Have Been Used By Tennis Coaches of Practically Every University and College Where Tennis Is a Recognized Sport

STRONG-DURABLE RESILIENT

The World's Leading Playing and Teaching Pros, as Well as High-Ranking Amateurs Have Found Hibse Vitagut Tennis Strings to be "Tops"

FLASH — Ask your dealer for Hibse #83—the lowest price genuine lamb gut string on the market today.

HIBSE GUT & SUTURE 939 W. 35th St. Chicago, Ill.

Cam Henderson will hold his

Ninth Annual

Coaching School

AT

Marshall College

Huntington, W. Va.

August 17-22, 1936

CARL SNAVELY
Cornell University
Football

CLAIR BEE
Long Island University
Basketball

CAM HENDERSON
Marshall College
Football and Basketball

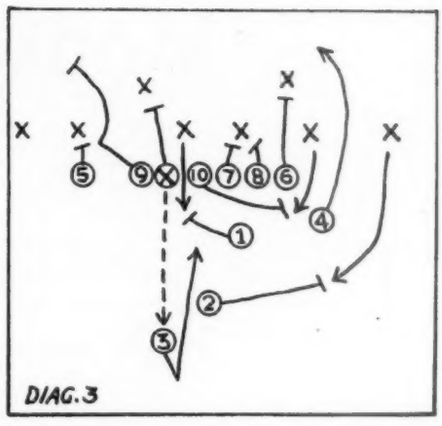
OTTO GULLICKSON
Marshall College
Physical Education

defensive left tackle. The play starts off just like the off-tackle play, with the fullback, 2, going out to the right and taking the defensive left end. Lineman 7 and the center work together. Lineman 10 swings around and leads the play up through the hole inside tackle. Lineman 9 goes down to pick off the secondary. The team I saw use that play against the Navy had very great success with it. The defensive tackle was willing. The boys on the other team were willing. So the tackle took a ride.

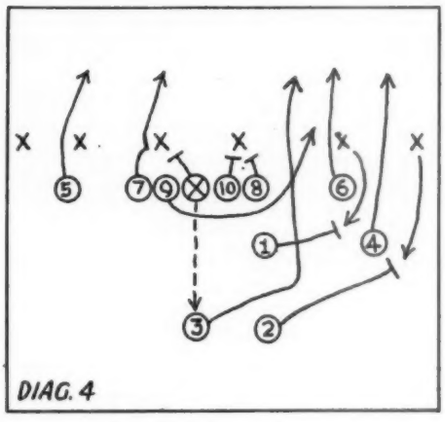
Howard Jones a few years ago had on his team Ernie Pinckert, probably one of the greatest blocking backs in football. In one of the games I saw Pinckert play, I noticed that the coach of the opposing team was sending short-side guards in all the time. Every guard sent in would take a toe hold and drive through and across into the backfield. Each guard went in with instructions to charge harder, which, of course, was the thing Pinckert wanted; so he could mouse-trap them.

I believe the mouse-trap play on the tackles and the guards is one of the most effective weapons that a quarterback has in controlling a defensive line. When tackles and guards rush through a few times and get driven out of the play, they lose confidence in their hard charging game. It is the same way with a guard who tries to knife a hole. He begins to think that it is all a mistake and slows down. When you get a defensive line that stops charging, you have lost your punch and your first line of protection.

The next play, shown in Diagram 3, is good from a single wing offense against opponents who have a guard knifing the hole when offensive guards are pulling out. This play was used against us several years ago, and the guard we had playing in there came out after the game and wanted to know if he wasn't on a street car line, because he thought he heard bells ringing. On this play, the center releases, goes down and picks off the first man in the secondary, usually the right defensive backer-up. Guard 10 pulls out and mouse-traps the defensive left tackle. Back 3 steps back and either fakes a pass or starts as if he were going to run. The fullback, 2, goes over to his right and takes the end. If the defensive left tackle charges across, he will usually block the end off himself. On this play, there is very strong teaming by 7 and 8. As the defensive right guard knifes through the hole, 1 comes across and side-swipes him. This play starts just the same as the play shown in Diagram 2, in which the tackle was mouse-trapped. How are we going to keep 10 and 1 from bumping heads? The lineman, 10, pulls out first in order to let the defensive left tackle get deep in the backfield. Then the quarterback, 1, permits the defensive right guard to come through to be side-swiped. The end, 6, goes down and picks off the nearest secondary man, and 9 goes down for the defensive right halfback. There is plenty of protection in front of the runner, 3.



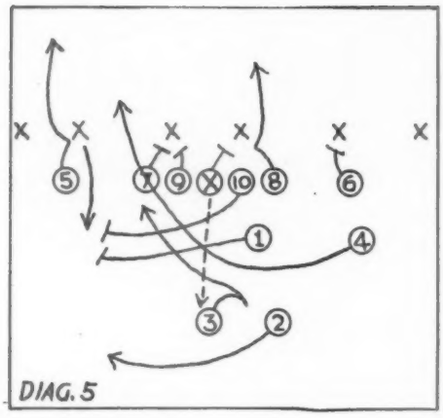
DIAG. 3

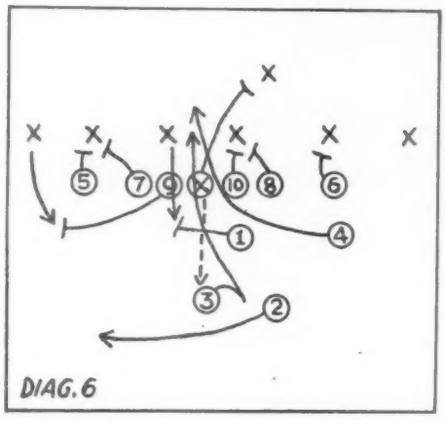


DIAG. 4

The next formation, shown in Diagram 4, is the Notre Dame formation. On this play, the right end, 6, releases, goes through and picks off the defensive left halfback, permitting the defensive left tackle to come through. The fullback, 2, takes the defensive left end. The fullback is out on the end, as he is many times on the off-tackle play. The quarterback, 1, goes out and mouse-traps the defensive left tackle, and 8 and 10 team on the defensive left guard. The center takes the defensive right guard, and 9 leads the play. The left end, 5, goes down, and 7 brushes the defensive right guard and goes through. Back 3, with the ball, starts out to the right and then cuts back inside tackle. This is a very good play. Any play that starts as an off-tackle play is bound to bring the tackle out as the play starts, because that is where he belongs.

Harry Stuhldreher has a mouse-trap play to the long side that is one of the best plays I have seen. I thought for a time it might be a good idea to diagram this play, but Harry pleaded with me not to give his touchdown play away, and I intend to protect him. This next play, shown in Diagram 5, is a fake reverse play to the short side; it has a lot of power and it hits fast. The offense gets plenty of men in front of the runner. It is a very potent play. It is used to check the defense in case the tackle starts drifting out



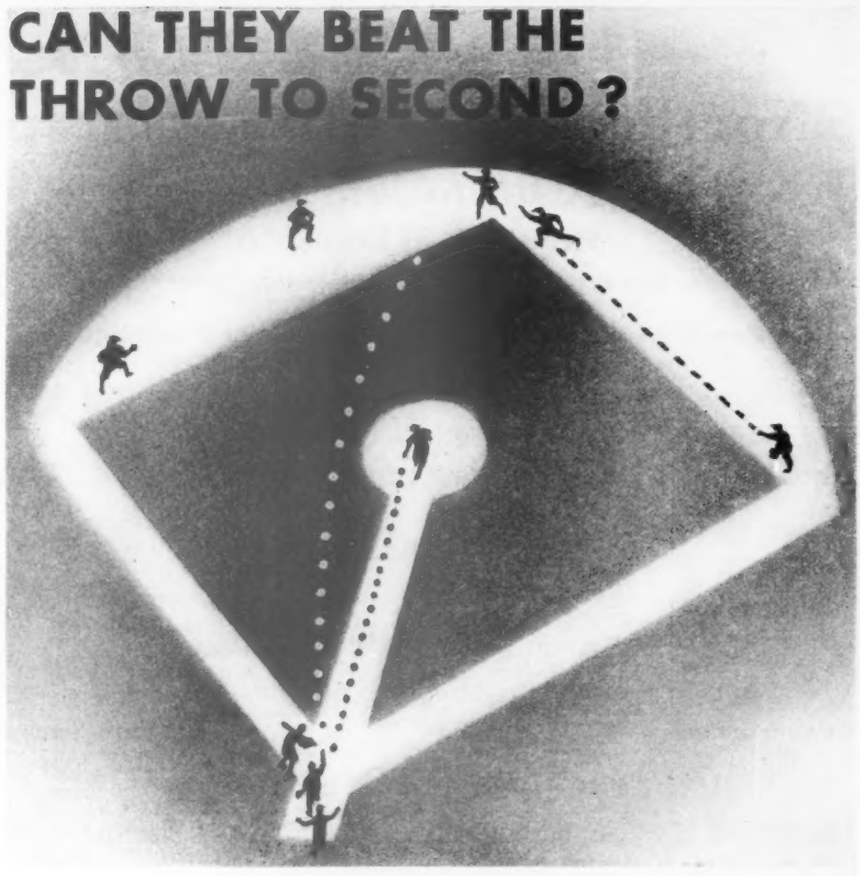


to stop the reverse to the short side. On this play, 3 gets the ball, steps over to his right on a half spin, fakes to give the ball to the fullback, 2, who ordinarily takes the ball and either runs on a wide reverse around the end or inside of tackle.

To start this play off, tackle 8 brushes the opposing guard to make him feel that he is trying to take him in. The quarterback, 1, and 10 go out to the left for the mouse-trap. As the offense is trying to get power plus deception in this play, 7 and 9 team on the player opposite. The center blocks to his right, and 8 can release after brushing the opposing guard. The halfback on the long side, 4, leads the play inside of tackle, and 3 follows him through. This play is a half spin to the ball-carrier's right and a fake reverse to the short side, or it may be a full spin without the fake reverse.

The next play, a mouse-trap on the opposing right guard, is shown in Diagram 6. The team using this play has four plays that work off one play: a wide reverse around the short side, a reverse inside of end or tackle, a fake reverse with a mouse-trap on the tackle and this fourth play, which is a "sucker" play on the guard.

This play is a combination of a mouse-trap and a cross block which, of course, is very potent in the line. The left end, 5, and 7 team on the opposing tackle, and 8 and 10 team on the opposing guard. Guard 9 pulls out and takes the opposing right end. The defensive right guard is allowed to charge through. As he comes across, the quarterback, 1, mouse-traps



Stealing second, of course, is one of the fundamentals you expect your team to absorb. But after you've taught your players *the headwork part*, it's up to them to beat the throw to second. Baseball is like every other big time sport—footwork and legwork are one of the major factors for success.

The big league teams play in shoes of genuine kangaroo. The 'varsity nines use kangaroo. For the same reasons that the champions of every sport in which supple leather footwear is important use it: because it is a leather that combines in an unrivalled way the characteristics that make for both *speed and safety*.

Kangaroo is 17% stronger, weight for weight, than any other leather tanned. This has been proved in the laboratories of the Massachusetts Institute of Technology. This margin of superiority means that at any given strength, Kangaroo is 15% lighter than its nearest rival (kid), that at any given weight kangaroo is 17% stronger.

Teach your players the theory of stealing bases—then help them put this theory into practice by gloving their feet in shoes of genuine Kangaroo.

KANGAROO TANNED IN AMERICA

The Sixth Annual

Northern Coaching School

August 24th to 29th, Inclusive

Bemidji, Minnesota

(Formerly the Moorhead Coaching School)

"Go Fresh from Coaching School Back to Your Squads"

Football

TAD WIEMAN

Intensive football under "Tad" Wieman, the nation's leading line coach, and "Fritz" Crisler, both of Princeton. "Fritz" is one of the nation's leading offensive coaches. John Getchell, Big Ten Official, will be on hand to lecture on relationship of rules to actual play.

FRITZ CRISLER

Track, Baseball, Training

Instruction in track and baseball and training and treatment of injuries will be available by appointment.

Basketball

Basketball under Everett Dean of Indiana, coach of champions, who will bring part of his championship squad with him to act as demonstrators. Marsh Diebold of Carleton College will supplement Dean's instruction. Diebold has won more western conference titles than any other single coach in the game.

Information

Free mimeographed material to all coaches in attendance. A single $15.00 fee for any or all courses. Accommodations of all kinds at reasonable rates. Reservations cheerfully made. Cottages, cabins, rooms, and hotels in this great lake country.

Write to **Alex J. Nemzek, Moorhead, Minnesota, or to H. M. Robbins, Bemidji, Minnesota**

IN USE BY

PENN · PRINCETON · NAVY

AND MANY OTHER LEADING TEAMS

Many famous coaches recommend the use of the Snyder Shoulder Guard because of its ability to prevent recurrence of shoulder injuries.

Constructed in a mobile manner, it allows the player to block, tackle or pass with absolute freedom.

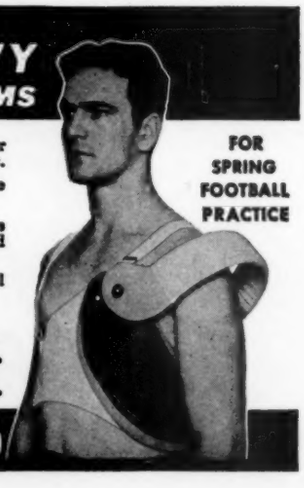
Light in weight, it fits any shoulder perfectly . . . absorbs shocks . . . enables injured players to get in the game . . . keeps the squad up to full strength.

Invented and patented by Augustus K. Snyder of the U. S. Naval Academy.

Write today or see your nearest sporting goods dealer

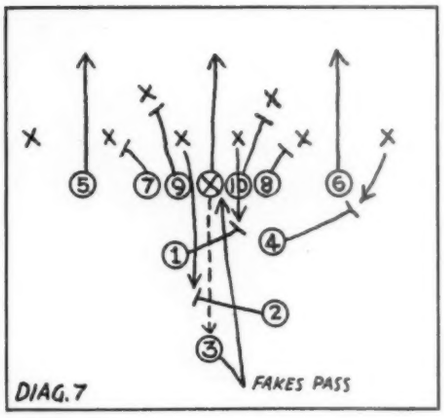
CHESTERMAN & STREETER, Inc.

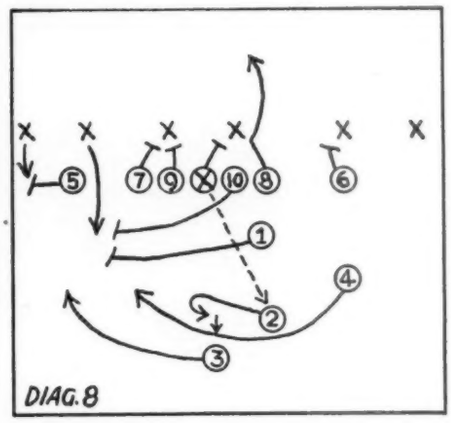
1205 WALNUT STREET, PHILADELPHIA, PA.



FOR SPRING FOOTBALL PRACTICE

SNYDER SHOULDER GUARD

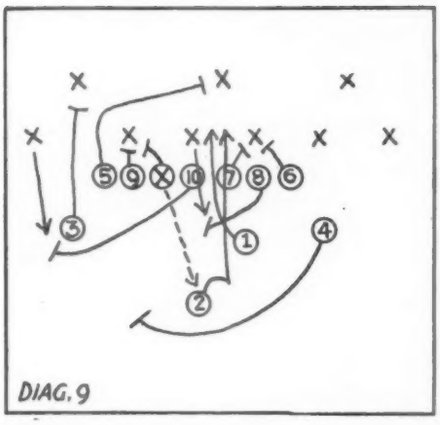




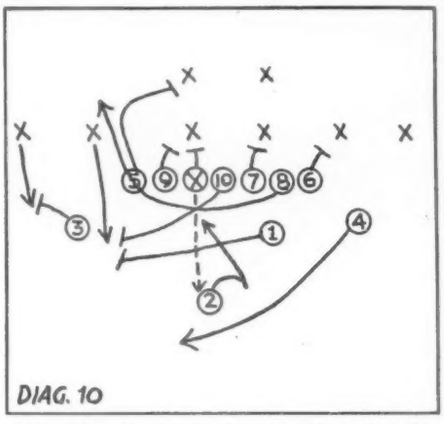
him. Back 4 goes up through the middle, followed by the ball-carrier, 3. There is a sequence of four different plays, one making the other one good, which is, after all, what coaches are aiming at in their offense.

About my next play, shown in Diagram 7, I am sure some of you will say, "It can't be done." Having played against a team that used this, I can vouch for the fact that it can be done. It is worked from the short punt formation. It is good against a hard charging line. If the defensive linemen don't rush, they will be knocked back on their tails, and that, of course, is where they should not be. On this play, the offensive guards release and go through for the secondary; the center can release and go down ahead of the play. As the defensive guards come through, 1 steps across to block first; then 2 takes his block. Back 3 fakes a pass and then hits through center.

The play in Diagram 8 is from a semi-punt formation and is a mouse-trap on the right tackle. On this play, the left end steps out and blocks the opposing end. The defensive right tackle is allowed to charge through. Linemen 7 and 9 team on the opposing guard. This play is similar to the fake pass going back to the short side. Lineman 10 and the quarterback, 1, go over to their left and take the tackle. As soon as 2 gets the ball, he steps to his left. (Of course, before this play is used, a lateral play has been worked off this formation.) As 2 steps to his left, 4 runs to his left. Back 2 keeps turning and feeds the ball to 4, who carries it inside tackle.



DIAG. 9



DIAG. 10

Double wing-back plays are shown in the next two diagrams. The play in Diagram 9 is a fake reverse with a mouse-trap on a guard. On this play, the left end releases and goes down and to his right for a defensive man behind the center of the line. Back 3 goes across to pick off the nearest man backing up the line. The center and 9 team on the defensive right tackle, and 10 pulls out of the line to take the defensive right end. Back 2 steps to his right and fakes to give the ball to 4, running to his left. The defensive right guard is allowed to come through, and as he does he is side-swiped by 8. The quarterback, 1, leads 2 through the hole.

The last play, shown in Diagram 10, is very similar to plays used in the various formations already diagramed. This is a very good standard play. It has some power in front of it. Back 3 goes out on the end. The left end, 5, releases for the nearest man backing up the line. He lets the defensive right tackle through. Lineman 10 and the quarterback, 1, come out to mouse-trap the tackle; 8 pulls out and around. Back 4 fakes to the left. Back 2 takes the ball, fakes to 4 and follows 8.

As I have said before: I feel that any offense that is well conceived should be able to mouse-trap either tackle and should have mouse-trap plays for the guards. I believe the mouse-trap is the one weapon that quarterbacks have that they can use to make a defensive line play somewhat the way they want it. To my mind, the defense in the last few years has received a great deal of advantage over the offense. Mouse-trap plays will help the offense.

SKINNED Knees and Elbows, Abrasions • Sprains • Strains Muscle Bruises

are such common accidents during the outdoor athletic season that leading trainers and physical directors have made it a practice to keep a supply of Antiphlogistine in their first-aid equipment for use in the prompt treatment of such conditions.

A layer of heated Antiphlogistine, applied direct to the parts, covered with cotton and a bandage, insures a dressing that is decongestive, antiseptic and pain-relieving and which does not require renewal for many hours.

Coaches, trainers and physical directors are invited to write for sample and literature.

ANTIPHLOGISTINE

The Denver Chemical Man'f'g Co.,
167 Varick Street . . . . New York, N. Y.

North Carolina University Coaching School
Chapel Hill, N. C.
August 17 to August 29, 1936

• The courses to be offered at the University of North Carolina's fifteenth annual coaching school include football, basketball, baseball, track and field, boxing and wrestling, and training and conditioning.

The school will be conducted under the directorship of Robert A. Fetzer, director of athletics at the University of North Carolina. Instruction will be given by the members of the University's regular coaching staff.

The registration fee of ten dollars will cover tuition for all courses and dormitory room rent. No additional charge will be made for rooming accommodations for coaches' wives.

For illustrated announcement, address
SECRETARY E. R. RANKIN
Chapel Hill, N. C.

FOOTBALL COACHING SCHOOL
Andy Kerr, Colgate University
and Jimmy Aiken, Canton McKinley High School
"The FOOTBALL of the FUTURE"
June 22, 23, 24, 25, 26
Learn from the Winners!
For further information write Director of Summer Session
UNIVERSITY OF AKRON
Akron, Ohio

BROOKS
NATURAL BEND
(Copyright) (Patent Pending)
SPRING STEEL ARCH SUPPORT
FOOTBALL SHOES

The Only Flexible Football Shoe with Arch Support

SCHOOL PRICES
$6.50 - $7.75 - $8.50 - $10.50
According to Grade

Order through your dealer or write us direct.

BROOKS SHOE MFG. CO.
Swanson & Ritner Sts.
PHILADELPHIA

All Football Coaching School at Colgate
August 17-21

Football Teacher

Andy Kerr, Colgate's coach for the past seven years, has proved that he can teach football—successfully. He has not only proved it by teams produced but by teaching others to coach in football schools of other years. His record at Colgate speaks for itself—54 games won, eight lost, one tied.

He will teach the Colgate system—single and double wing-back and punt formation attacks, with stress upon the lateral and forward pass. There will be emphasis on fundamentals.

Demonstrations

There won't be merely blackboard talks—there will be actual demonstrations by Fred Swan, Temple line coach, Kerr's assistant coaches, Les Hart, Johnny Orsi and Bob Gillson and Colgate players. A team will demonstrate.

Course in Training

Given by Jack Rourke, Colgate's veteran trainer, who will cover all phases of getting athletes in condition and keeping them in condition.

Tuition $15.00
Total expenses for week less than $30
William A. Reid, Director,
Coaching School at Colgate
Hamilton, New York

University of Michigan Golf Course

Turf Maintenance

By Edward E. Evaul

THE term turf maintenance may be defined as the act of maintaining turf, or, more exactly, the keeping of turf in an effective condition for play at all times and under all conditions.

As no two golf courses have the same soil, drainage, turf conditions and traffic, it is obvious that each course, and indeed each green, fairway and tee, presents special problems. Thus it does not take much mental effort to see the important role played by the greenkeeper in a maintenance program.

Construction

UNFORTUNATELY, many of the headaches of the greenkeeper which have to be dealt with in his maintenance and renovation program are the result of poor construction. As a rule, there is too much haste at the time of building the golf course. It is one thing to lay out a course so that it meets the requirements or the demands of good play, but it is an entirely different problem to make the necessary soil and turf adjustments. Until the course officials demand at the time of construction the assistance of a competent individual who has a definite knowledge of soils and grasses, little hope for improvement from this angle can be offered.

We cannot lay all of the causes of our troubles to poor construction. In some cases poor maintenance practices are the cause of many turf problems. Any system of maintenance should be built up around the fundamentals of plant growth. We all know that grass is a plant and, as such, requires sunlight, moisture, air and an adequate supply of nutrients to fulfill its life functions.

Sunlight, Air and Moisture

SUNLIGHT is essential to supply the necessary energy with which the chlorophyll (green coloring matter in the leaf) manufactures the complex starches and sugars which are in turn utilized by the plant. Yet how often do we find creeping bent greens in which the nap has become so thick that the leaf blades beneath the surface have died from the lack of sunlight! Direct contact with the soil in such cases has also been lost.

Moisture, another requirement for plant growth, is either too abundant or not adequate to support satisfactory growth. Either of these conditions may have been created by faulty maintenance or poor construction. If the soil is sandy in nature and lacks sufficient of the organic, silt or clay fractions, the water-holding capacity will be too low to support good growth. If, on the other hand, the soil has poor sub-surface drainage and the soil remains in a water-logged condition for a period of a few days or a week, the grass roots die from the lack of sufficient air. Disease makes its appearance and kills off the weakened plants.

Any of the above unfavorable conditions can be created by the improper use of top-dressing materials or by the building up of the soil with organic matter or clay layers at the time of construction.

From what has been said about the water-logged condition of soil and poor subsurface drainage, one can appreciate the importance of good soil aeration and its relationship to root development. We must also bear in mind that the common maintenance practices, such as rolling mowing, watering, worming, grub-proofing, plus the traffic on the green, all tend to pack the soil and thereby reduce the pore-space (air space) between the soil particles. The only maintenance operations followed which tend to counteract this condition are spiking, spike-discing and forking.

Fertilizers

IN order to maintain an adequate supply of available plant nutrients, the application of chemical fertilizers has become a common practice. Unfortunately, not enough attention has been paid in the past to the type of fertilizer added, and guess-work or a trial and error method of selection has been followed. A sane and rational means of selection would be one designed first to meet the deficiencies present and then to supply the necessary elements in the proportions needed. Soil testing facilities are present at most of our agricultural colleges, and these facilities are offered to those interested. The tests are simple, easy to run and, compared to the more detailed methods of analysis, take little time. In the hands of a competent, well-trained individual, these simple tests are a big aid in doing away with guess-work, but in the hands of the layman they may prove to be a dangerous tool.

In interpreting these tests in the past, I have kept one fundamental line of reasoning before me at all times. First, take care of all deficiencies and make sure that conditions are favorable for the adequate development of roots and the beneficial soil organisms. In other words, build up the foundation before starting on the top. From the practical standpoint, this means an ample supply of available phosphorus and replaceable calcium, together with a proper degree of soil acidity. After such conditions have been reached, then one is justified in supplying nitrogen to increase the leaf growth and improve the density of the turf.

Another pitfall common to many of us has been the overfeeding with nitrogen. The effect on grass of such a practice is similar to that of poor drainage. A soft, succulent growth will follow such a practice. Turf in such condition is undesirable, as it is less resistant to attacks of disease and scald, and it bruises easily under traffic. An ideal fertilization program is one that supplies just enough plant food to produce a slow, steady growth and maintain a good color.

In the past few years there has been a return to the use of lime. This is natural after the large losses of turf experienced by courses following the acid theory of weed control that has been prevalent throughout the country. However, it would be well to issue just a little caution at this point regarding lime. At the present time, while we are again living in a lime era, there is the danger of overdoing lime, just the same as the acid soil theory was overdone. It is a happy medium that we should strive to follow. Apply lime where it is needed and there only.

Miscellaneous Suggestions

MORE attention should be given to the choice and use of fungicides in our turf maintenance program. This basic fact should be kept in mind, that mercury is the effective ingredient in all of our recommended turf fungicides. This additional fact should be remembered, that today no effective chemical control has been found for such diseases as leaf-spot and spot-blight. One should first ascertain whether the condition present is the result of fungous activity. Once he is sure of this fact, the next thing to consider is whether it is the type that can be controlled with chemicals. If so, he should use the mercury carrier, which, to obtain a control, costs him the least per unit of mercury per 1000 square feet.

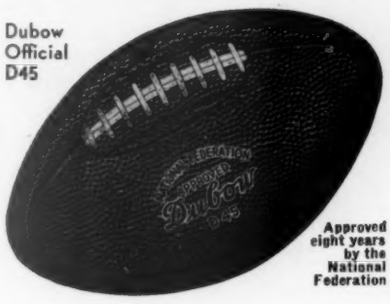
Winter sanding of greens as a maintenance practice by this time should have been placed in the archives. Along with this should also have been placed the use of pure materials, such as humus or peat as top-dressing. Although such treatments may give the desired result at the time of application, they do not correct the problem permanently. They create layers which in time present a much larger problem than the one causing the initial application. Such layer formations interfere with the natural capillary rise of moisture and nutrients from the soil beneath. If the layers are of organic matter, they seal up the natural drainage. If they are of sand, they restrict the depth of the permanent root system. Relief from such a condition can be obtained by tubular forking, but permanent relief is not obtained until the turf is removed and the layers broken up.

ALTHOUGH the number of schools and colleges maintaining their own golf courses is relatively small, the list of institutions promoting golf as an interinstitutional sport is constantly growing. Many coaches are therefore concerned directly or indirectly with the maintenance of golf courses. Helpful to these men is this article on the care of turf by an agronomist of long experience. Edward E. Evaul was formerly with the New Jersey Agricultural Experiment Station and is now with the United States Government in Erosion Control. This article is an abstract of a talk given by Mr. Evaul before a recreation conference at Massachusetts State College.

Every coach knows that

The flowers that bloom in the spring, tra-la,
Have nothing to do with the case.

But wise plans made in the spring will bear good fruit the following fall. The coach who orders his football equipment in May can give all his attention in September to coaching the squad . . . and winning games.



Footballs

Dubow Official D45
DWF—Official white ball for night games
F65—a good ball for the money

Uniforms Shoes Pads Jerseys

J. A. DUBOW MFG. CO.
1907-13 Milwaukee Ave., Chicago, Illinois

Plan to Attend the

UNIVERSITY OF DENVER
School for Coaches
July 20-31, 1936

Football:
BIERMAN . . . . Minnesota
BIBLE . . . . . Nebraska
OAKES . . . . . Colo. U.
KLUM . . . . . Hawaii
SAUNDERS . . . . Denver U.
HUBBARD . . . . . Denver U.
MAHONY . . . . . Denver U.

Basketball:
BARRY . . . . U. of So. Calif.

Track:
SCOTT . . . . . Colo. Mines
(Formerly at Ft. Collins (Colo.) High)

Wrestling:
GALLAGHER . Okla. A.&M.

Golf:
LONG . Denver Professional

TUITION $25
For All Instruction

For further information write: Lewis Mahony, U of Denver, Denver, Colo., Dept. M

VACATION IN COLORADO

STUDY

MINNESOTA FOOTBALL

AT THE UNIVERSITY OF MINNESOTA

June 15-20

WITH

THE WINNING PAIR

BERNIE BIERMAN
(Head Coach)

DR. GEO. HAUSER
(Line Coach)

The only opportunity to study with the combination that has developed Minnesota's great football teams—and in addition

BASKETBALL

DAVE MacMILLAN (Minnesota) and J. D. (Jim) KELLY (De Paul)

also courses in Athletic Training—Track—Recreational Games.

Take your vacation among Minnesota's 10000 lakes and stop off in Minneapolis for a profitable week of study.

For details address

L. F. KELLER, Athletic Dept., Univ. of Minn., Minneapolis

First Annual

WEST TEXAS STATE COACHING SCHOOL

June 3-10—Canyon, Texas

FOOTBALL

LEO (DUTCH) MEYER of T.C.U., Sugar Bowl Champs, Single and Double Wing-Back.
RAYMOND (BEAR) WOLF of T.C.U., Line Play.
JACK MEAGHER, Head Coach Alabama Poly of Auburn, Notre Dame System.
CARL (DUTCH) VOYLES, Line Coach of Duke University, Line Play—Scouting.
BLAIR CHERRY of Amarillo High School (Texas State Champions, 1934-1935), Double Wing-Back.

BASKETBALL

GLEN ROSE of the University of Arkansas, Southwest Conference Champions and Olympic candidates.
"CHUCK" TAYLOR, trick shot and pass artist, the "Ambassador of Basketball."

TRACK

CARL (DUTCH) VOYLES, Head Track Coach of Duke University.

ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION

DR. HARRY A. SCOTT, Director of Physical Education of Rice Institute, and Professor in School of Physical Education, Columbia University each summer.

3 HOURS' CREDIT

EXPENSES LOW. TUITION, $15.00. ROOM AND MEALS, $10.00. Recreation and Entertainment of Every Kind—Barbeque, rodeo, swimming, canyon trip, golf, horseback riding, Carlsbad Cavern trip.

For further information write

Al Baggett, Director, West Texas State, Canyon, Texas

Coaching the Pole Vault

(Continued from page 8)

manner is found to interfere least with the power and smoothness of the run; point upward, parallel to the ground, across the body or straight ahead. The hands should be about three feet apart, thumbs of both pointing toward the top of the pole. The left forearm may be steadied against the chest. The right arm, extended at full length backward, should be given a slight twist to bring the knuckles of the hand outward.

The Pull-Up

WITH the take-off run completed, we are ready to launch our vaulter into space. As his left foot strikes the ground, the pole is seated in the box, the right hand is passed in front of and across the head with an underarm swing which carries the pole forward and over the left shoulder. The shock of seating the pole aids with the shifting of the left hand, which is brought up to within about six inches of the top hand. The left hand should not be brought against the top hand in this shift, as having the hands very close together is apt to cause one of them to "trip" the other as the athlete applies pressure to the pole. Having the hands apart also seems to give the vaulter a better sense of balance, a better hand "stance" as it were. The take-off is made by planting the left foot hard on the take-off mark and rocking forward on to the ball of the foot, leaving the ground with a combination bound and swing—the bound upward and the swing forward. The right leg is swung upward and just a trifle to the right of straight ahead as the take-off bound, taken on the left leg, reaches its limit.

The pull-up with the arms is started sharply as the take-off bound is made but is delayed after the arms are slightly flexed until the feet are swung to the fullest possible height, after which the pull is finished with the utmost power that can be applied.

It is important that the forward swing of the pole be not checked as the pull-up starts and that the weight of the body be pulled up along the pole rather than at an angle to it, which would act as a brake on the forward swing. Most top flight vaulters insure proper position of the body during this phase by withholding their maximum pulls until their elbows have passed the pole. Then, with their forearms lying along the pole, they are sure the line of force of their pulls are such that the pressure is exerted against the butt of the pole, which is supported against the ground. Pulling before the forearms are in this position results in bringing the pole back toward the vaulter and checking its forward swing, giving the jumper little support for his pull. This in turn results in

not getting the pole far enough ahead and to the left to keep the jumper from bumping into it on the upswing.

The Upswing

AFTER the right leg reaches the highest point in its initial swing, the left is swung up to and a few inches past it, the right leg again passing the left in scissors fashion to aid in turning the body to the left, bringing the chest toward the cross-bar. If your vaulter is of the fly-away type, his speed and swing carry him over the bar as he flings the pole from him with an upward flip of his wrists. If he depends upon the pole and body arch to give him clearance, as his chest comes toward the bar he pulls the pole in toward his chest, swings his left leg downward under the bar to aid in lifting his upper body clear of the cross-bar, and disposes of the pole with a sharp upward fling of the hands and forearms.

In the matter of pull-up, it is important that the pull with both arms be balanced. An unequal pull in which the left arm overpulls the right will result in the vaulter going over with his back to the bar; if the right arm overpulls the left, the vaulter will spin around after finishing his vault and land facing away from, instead of toward, the runway. Both of these faults show a lack of equilibrium in the air which is vital to good vaulting.

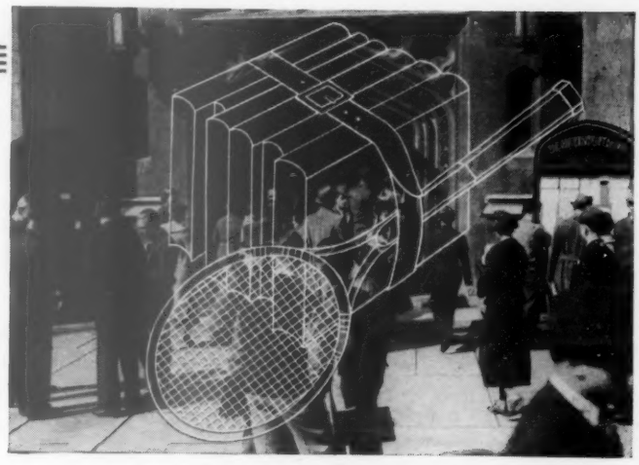
The cross-bar should be set well back from the take-off so as to allow plenty of room for the upswing. With the wind at the vaulter's back, the bar should be set further back to prevent the vaulter being carried into it by the wind. Conversely, it may be set forward a bit if the vaulter is running into the wind.

To develop the take-off swing, one good method is to place the bar at a low height and three or four feet back of the box and have the vaulter practice a sort of combination height and distance event. Some vaulters will be found of the high jump type. These are boys who seem to get up into the air but do not get enough forward swing. The advantages of this particular exercise are manifest in their cases; but it is helpful in all cases in developing bound, swing and balance in the take-off. For the boy who seems to have a sort of broad jump take-off and who does not get up into the air quickly enough, a good training exercise is to have him vault at a fairly low height, using a take-off run of eight or ten strides.

Practice Schedule

IT is not advisable to have a vaulter vault more often than every other day in the early season. Twice a week should be enough for the experienced vaulter in the two weeks preceding the first meet and, once the season gets under way, a practice on Tuesday or Wednesday should be sufficient with competition on Saturday. On the days the athlete is not actually

"Bill" Croker's article on "Footwork and Balance in Tennis" will help with your tennis instruction. As many copies as you can use, FREE for the asking.



WORK and PLAY

Tennis provides perfect recreation for all your students. It contributes an element of healthful exercise for a balanced diet of work and play.

Teach tennis! Encourage your students to make full use of playing facilities in your locality. And instruct them how to get most fun out of playing—by having their rackets live-strung with VICTOR **"Strings that Win."**

VICTOR SURGICAL GUT MFG. CO.
4501 PACKERS AVE.
CHICAGO

MAKE THE VICTOR

Fourth Annual

BUTLER UNIVERSITY COACHING SCHOOL

August 10-15, 1936, Indianapolis, Ind.

FOOTBALL

FRITZ CRISLER (Princeton)—Single wing and short punt.

PURDUE COACHING STAFF—Complete Notre Dame style of play. Scouting and defensive formations.

DR. GORDON THOMAS and LON MAN—Prevention and modern training.

BASKETBALL

PAUL (TONY) HINKLE (Butler)—Principles of basketball needed for success.

EVERETT DEAN (Indiana)—Basketball that won success for Indiana.

3 Hours Credit

Expenses—Tuition, $15.00. Room and Board, $10.00

Recreation and entertainment. Movie pictures.

For further information write

Paul Hinkle, Director, Butler University, Indianapolis, Ind.

vaulting, he can check his take-off run, work on sprints or hurdles, and spend an occasional afternoon in the apparatus room with the horizontal bars and the flying rings, and on the tumbling mats. Hand stands and walking on the hands develop the strength of wrist and forearm which is so valuable to the vaulter. They also contribute to his sense of balance.

I should make clear that in recommending only one workout a week during the competitive season I am referring to a vaulter of at least average ability. It is probably wise to have beginners vault every other day even during this season, taking the competition as just another workout.

New Method of Scoring the Decathlon in the Olympics

By W. A. Dill
University of Kansas

THE new method of scoring the decathlon, which will be used in the XIth Olympiad this summer in Berlin, is explained here by W. A. Dill. As Associate Professor of Journalism at the University of Kansas and an old newspaper reporter, Mr. Dill has been intimately connected with the Kansas Relays and other sports events.

A NEW, more logical and at the same time far simpler method of scoring the decathlon, one of the features of the Olympic games, will be used at the Olympiad this year, following adoption of the new method by the International Amateur Athletic Federation a little more than a year ago. The new method was devised in Finland after a most careful study of the effort required for each of the events of the decathlon. It was given its first American use at the Kansas Relays of 1935 and was found entirely satisfactory.

Under the system of scoring long used in the Olympics, and elsewhere, the basis was the best performance in each event of the decathlon program, as recorded in the 1912 Olympic Games. This best performance was rated 1000 points, and deductions were made for each fraction of second, or each fraction of meter, that the contender fell short of Olympic perfection—as of 1912. Surpassing the Olympic measuring stick, of course, brought additional points. Thus, the ideal decathlon man would be able to run 100 meters as fast as the fastest 100-meter Olympic runner of 1912, or jump as far as the best jumper, or put the shot as far as the best shot putter, or do the 1500-meter run in the time of the champion middle distance runner.

When James Bausch, former University of Kansas student, set the new Olympic mark at Los Angeles in 1932, he was well above four-fifths this perfect man of 1912, with a scoring of 8462.235. In fact, Bausch surpassed 1912 Olympic perfection in the pole vault and the javelin, and nearly equalled it in the discus, but fell far short in the 1500-meter run.

The New System Explained

UNDER the new Finnish system, the uniform rate of deductions, or additions, is abandoned, and a graduated scale substituted, with the idea of awarding equal points for equal effort. In other words, cutting one-tenth of a second off an 11-second 100-meter dash takes more effort, and is worth more points, than cutting an equal amount of time from a slow race run in 14 or 15 seconds.

Accordingly, in the new system of scoring, the 1000 points goes for a 100-meter dash run in 10.5 seconds (slightly better time than required for 1000 points under the old system). If the race had been a slow one, 13 seconds, for example, the points would be 414, and if 14 seconds, 275, and if 15 seconds, 165. Similarly, a base time or distance is established for each of the ten events, and 1000 points assigned for performance at that base. The experts who designed the table computed what seemed to them to be performances of equal effort, and consequently equal merit, to be used as the base, rather than taking the performance in the events of any given Olympiad.

The tendency of the new scoring tables is to reduce rather sharply the points of the excellent athlete, and to reduce less sharply the points of the less skillful. Thus the Kansas Relays decathlon record, set by Bausch in 1932 at 8022.4025, would have scored 7045 under the new tables, a reduction of some 12 per cent. Ross, who finished with the low score of 5172.05 in the same meet, would have scored 4722 under the new tables, or a loss of about 8 per cent.

Scoring under the new tables is further simplified by the fact that the official scoring book, starting with 1150 points, gives the performance required in each event to merit the points indicated, and the rule requires the assigning of the whole number equal to or next below the performance in the event being scored. This does away with the complicated math-

Table I

	Old System	New System
100-Meter Dash	10.6 seconds	10.5 seconds
400-Meter Run	48.2 seconds	48.0 seconds
110-Meter Hurdles	15.0 seconds	14.6 seconds
1500-Meter Run	3 minutes 56.8 seconds	3 minutes 54.0 seconds
Shot Put	15.36 meters	15.7 meters
Discus Throw	45.2 meters	48.9 meters
Javelin Throw	60.9 meters	69.98 meters
High Jump	1.93 meters	1.97 meters
Broad Jump	7.6 meters	7.7 meters
Pole Vault	3.94 meters	4.2 meters

(The meter is 3 feet, 3⅜ inches.)

Table II

Event	Time or Distance	Old Official Scoring	Scoring Under New Plan
100-Meter Dash	11.7 seconds	738.20	662
400-Meter Run	54.2 seconds	774.40	660
Broad Jump	22 feet 9 5/6 inches (6.94 m.)	840.75	788
Shot Put	50 feet 3⅛ inches (15.32 m.)	998.00	956
High Jump	5 feet 7 inches (1.7 m.)	678.00	671
110-Meter Hurdles	16.2 seconds	886.00	749
Discus	146 feet 3.1 inches (44.58 m.)	976.06	853
Pole Vault	15 feet 1½ inches (4 m.)	1027.00	907
Javelin	200 feet 1½ inches (61.91 m.)	1025.02	822
1500-Meter Run	5 minutes 17.0 seconds	518.80	324
Totals		8462.23	7392

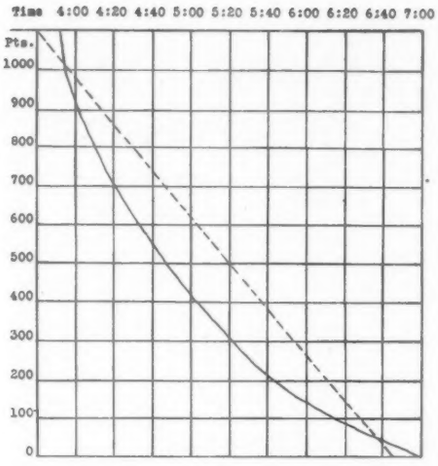


Chart Showing Relative Marks Scoring the 1500-Meter Run in the Decathlon, Old and New Systems. The broken line represents the old system; the solid line the new system. Under the old system a regular deduction of 6 points was made for each second added to the 1000-point base of 3:56.8 for the event. The time of 6:43.4 gave no points. Under the new system more points are deducted for added seconds near the 1000-point base of 3:54 than for slower time. The lessened deductions for slow time carry the zero point to 6:58.1. About the greatest spread is at 5 minutes, where the old system gave 6:20.8 points and the new gives 414 points. In some events of the decathlon, the spread is less than in the 1500-meter run.

ematical computations, often to four decimal places, that formerly delayed announcing of points scored in each event.

Old and New Systems Compared

IN Table I are the times and distances scoring 1000 points under the old and new systems.

Under the new scoring system, the Olympic decathlon record of 8462.23, set at Los Angeles by Bausch, would have been 7392 points. Guy W. Smith, Professor of Mathematics at the University of Kansas, who with Professor J. J. Wheeler has been official statistician for the Kansas Relays decathlon for ten years, has computed Bausch's scoring for the various events, under the new system, and compared them with the announced points, which were taken from the old books. Professor Smith's table of Bausch's record is shown in Table II.

The Library Shelf

WRITTEN especially for individuals who must teach tennis to large groups, *Tennis for Teachers* will be found suitable for the coach who specializes in tennis instruction or the one who must teach the game incidentally because it is part of the physical education program. Helen Irene Driver, the author, is Instructor in Charge of Women's Tennis at the University of Wisconsin.

Included in the book are, of course, chapters on the various strokes. More helpful, perhaps, because less commonly

Again AMERICA'S LEADING COACHES
Instructing at the

NORTHEASTERN UNIVERSITY
THIRD ANNUAL
COACHING SCHOOL
June 22 BOSTON, MASS. **June 27**

CONCENTRATED COURSES IN
FOOTBALL and BASKETBALL

BIERMAN
University of Minnesota
Undefeated 1933-34-35
Lectures on
Single Wing and Unbalanced Line

CLARK
Detroit Lions
1935 World's Professional Champions
Lectures on
The "Open Game" Offense

WIEMAN
Princeton University
Undefeated in 1935
Lectures on
The Line Offense and Defense

SWAN
Temple University
Formerly at Wisconsin and Colgate
Lectures on
Warner System of Line Play

BEE
Long Island University
Undefeated 1935-36
Has won 73 out of last 76 Games
Lectures on
"Winning Basketball" Offense and Defense

LECTURES WITH MOVIES
FIELD AND FLOOR DEMONSTRATIONS WITH PLAYERS
Low Tuition — Special Hotel Rates — Entertainment

Write for full particulars and catalog to
Prof. E. S. PARSONS
Northeastern University Coaching School
316 Huntington Avenue Boston, Massachusetts

FOR SUBSCRIBERS ONLY—
128 Illustrations
Baseball, Track and Field

BASEBALL

Set	B-1	Pitching	28 Illustrations
Set	B-2	Catching and Batting	11 Illustrations
Set	B-3	Batting	16 Illustrations

TRACK

Set	T-1	High Jumping	9 Illustrations
Set	T-2	Hurdling	11 Illustrations
Set	T-3	Middle and Long Distance Running	36 Illustrations
Set	T-4	Broad Jumping	17 Illustrations

These illustrations are reprints of action pictures from The Athletic Journal, printed on only one side of the paper, and are suitable for posting on gymnasium bulletin boards.

Check the sets you want.

The Athletic Journal,
6858 Glenwood Avenue, Chicago, Ill.

I am at present a subscriber to The Athletic Journal for one year or more. Please send me *without cost* the sets of pictures checked above.

Name .....

Address .....

.....

NOTE: As these pictures are a part of the subscription, they are not for sale. They are sent without cost only to persons whose subscriptions are for one year or more. If your subscription is in the name of your school, list below the exact way in which we have it in our files.

Speed them up
with
STERNAMAN SHOES

"Dutch" Sternaman Speed Shoes are lightning fast, yet sturdy enough to stand up under the hardest wear. Water-proof black canvas drill uppers, leather trimmed and fully reinforced at strain points.

Illustrating
Football Shoe
Long Game Cleats

With Permanent Cleats

$3.50 a pair (in team lots of 12).

$3.75 a pair (single pairs).

With Detachable Cleats

$4.00 a pair (in team lots of 12).

$4.25 a pair (single pairs).

Sternaman Cleats

Faster—Light in weight. Can be easily and cheaply attached to the lightest shoe.

Safer—Designed with fewer parts. No metal core to wear or break through.

More Comfortable—Because of wide base, they remain comfortable to wearer's feet and banish hazards of crippling "stone-bruises."

More Economical—First cost extremely low. Wear longer. Adapted to lighter, less costly shoes than either metal cored rubber cleats or nailed-on leather cleats.

Made in five styles: Soccer, Short Game, Regular, Long Game, and Mud in either Permanent or Detachable Cleat. The regular style cleat is most popular. Order from this ad. Samples sent to recognized coaches on request.

Attach to old or new shoes
No metal core

"Its a cinch to clinch"

Permanent Model Cleats

One set of 14 ..... **$0.49**
Box of 100 (7 sets) **3.50**

Detachable Model Cleats

One set of 14 ..... **$0.64**
Box of 100 (7 sets) **4.55**

Edward C. ("Dutch") Sternaman
2656 Diversey Blvd., Chicago

discussed, are suggested elementary games that have been found useful in teaching the strokes to beginners. A chapter on common tennis faults of beginners contains an exhaustive chart through which the beginner may study the causes of error in his, or her, game. The chapter on tennis tactics, dealing with both the singles and the doubles game, contains useful diagrams.

Especially helpful to the teacher of tennis are the chapters "Tennis Teachers' Problems and Lesson Planning," "Tennis Tests," "The Use of Rhythm in Tennis Coaching," "Organization of Tennis Programs," and a bibliography.

The book is published by W. B. Saunders of Philadelphia. The price is $2.50.

OF interest to students of physical education and of orthopedic surgery is *Mechanics of Normal and Pathological Locomotion in Man*. The author is Arthur Steindler, M. D., F. A. C. S., Professor of Orthopedic Surgery of The State University of Iowa. The aim of the author throughout the book is to translate theoretical conceptions of the subject into terms of practice, or, in other words, to demonstrate the relation between theoretical analyses and practical interests. While Dr. Steindler presupposes an elementary knowledge of physics and mathematics in the reader, his work is well within the grasp of the average student of physical education or medicine.

Charles C. Thomas, Springfield, Illinois, and Baltimore, Maryland, is the publisher; $8.00 is the price.

Change of Address

WILL you receive the June issue? Any coach who will not be at his present address on the first of June should notify us as soon as possible, giving the address to which the June issue is to be sent. This will avoid failure to receive copy of this issue. Duplicate copy cannot be sent to replace that undelivered through failure to send advance notice.

The coach who is assuming a new position in September should also notify us of the new address, stating when it is to take effect.

Coming

MORE articles on track are promised for the June issue, among them "Three Simple Ways to Make a Sprinter Run Faster," by W. T. Swenson of the University of Iowa. An article by Winfield S. Angus of Eastern Illinois State Teachers College contains an interesting summary of victories won by athletes representing the United States in previous Olympiads.

INDEX TO ADVERTISERS

	Page
Absorbine Jr.	30
Akron Coaching School	37
Brooks Shoe Mfg. Co.	38
Butler Coaching School	41
Chesterman & Streeter, Inc.	36
Colgate Coaching School	38
Denver Chemical Mfg. Co.	37
Denver Coaching School	39
Dolge Co., C. B.	26
Dubow Mfg. Co., J. A.	39
Gold Medal Foods, Inc.	21
Great Western Athletic Goods Co.	29
Henderson's Coaching School, Cam	34
Hibse Gut & Suture	34
Hotel Sherman	Inside Back Cover
Kangaroo Leather Association	35
Minnesota Coaching School	40
North Carolina Coaching School	37
Northeastern Coaching School	43
Northern Coaching School	36
Northwestern Coaching School	1
Olympic Tour	25
O'Shea Knitting Mills	Back Cover
Reach, Wright & Ditson, A. J.	4
Riddell, Inc., John T.	27
Spalding & Bros., A. G.	23
Sternaman, Edward C. "Dutch"	44
Toro Mfg. Corporation	31
Victor Surgical Gut Mfg. Co.	41
West Texas State Coaching School	40
Wilson Sporting Goods Co.	3
Witchell-Sheill Co.	Inside Front Cover

ATHLETIC HEADQUARTERS

IN CHICAGO

Occupying practically an entire square block, rising 25 stories high, and providing 1700 guest rooms, Hotel Sherman is the most accessible and conveniently located hotel in Chicago.

1700 ROOMS
1700 BATHS
from **$2.50**

- Ideal headquarters for your teams, whenever they come to Chicago.
- Exceptionally comfortable beds with extra long sizes specially for big men.
- Special "training menus" gladly arranged.
- Convenient to all transportation and places of amusement.
- Home of the College Inn, featuring, always, a nationally famous orchestra.

CLARK • LAKE • RANDOLPH AND LA SALLE STREETS

C·H·I·C·A·G·O

O'SHEA *for* PADS

O'Shea makes an extensive array of Shoulder Pads and Blocking Pads for all purposes and purses

Scientifically designed to fit perfectly and give maximum protection without hindrance.

SEE THEM FIRST

Also the finest in Football Jerseys — Football Pants — Football Hose and Sideline Sweaters.

O'SHEA KNITTING MILLS

Athletic Knitted Wear for Every Sport

2414 N. SACRAMENTO AVE. CHICAGO, ILL.